aws

Developer Guide

AWS Deep Learning AMIs

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AWS Deep Learning AMIs: Developer Guide

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What is AWS Deep Learning AMIs?

AWS Deep Learning AMIs (DLAMI) provides customized machine images that you can use for deep learning in the cloud. The DLAMIs are available in most AWS Regions for a variety of Amazon Elastic Compute Cloud (Amazon EC2) instance types, from a small CPU-only instance to the latest high-powered multi-GPU instances. The DLAMIs come preconfigured with NVIDIA CUDA and NVIDIA cuDNN and the latest releases of the most popular deep learning frameworks.

About this guide

The content in the can help you launch and use the DLAMIs. The guide covers several common deep learning use cases, for both training and inference. It also covers how to choose the right AMI for your purpose and the kind of instances that you might prefer.

Additionally, the DLAMIs include several tutorials that their supported frameworks provide. This guide can show you how to activate each framework and find the appropriate tutorials to get started. It also has tutorials on distributed training, debugging, using AWS Inferentia and AWS Trainium, and other key concepts. For instructions on how to set up a Jupyter notebook server to run the tutorials in your browser, see Setting up a Jupyter Notebook server on a DLAMI instance.

Prerequisites

To successfully run the DLAMIs, we recommend that you be familiar with command line tools and basic Python.

Example DLAMI use cases

The following are examples of some common use cases for AWS Deep Learning AMIs (DLAMI).

Learning about deep learning – DLAMI is a great choice for learning or teaching machine learning and deep learning frameworks. The DLAMIs take away the headache from troubleshooting the installations of each framework and getting them to play along on the same computer. The DLAMIs include a Jupyter notebook and make it easy to run the tutorials that the frameworks provide for people new to machine learning and deep learning.

App development – If you're an app developer who's interested in using deep learning to make your apps utilize the latest advances in AI, then DLAMI is the perfect test bed for you. Each

framework comes with tutorials on how to get started with deep learning, and many of them have model zoos that make it easy to try out deep learning without having to create the neural networks yourself or to do any of the model training. Some examples show you how to build an image detection application in just a few minutes, or how to build a speech recognition app for your own chatbot.

Machine learning and data analytics – If you're a data scientist or you're interested in processing your data with deep learning, then you'll find that many of the frameworks have support for R and Spark. You will find tutorials on how to do simple regressions, all the way up to building scalable data processing systems for personalization and predictions systems.

Research – If you're a researcher who wants to try out a new framework, test a new model, or train new models, then DLAMI and AWS capabilities for scale can alleviate the pain of tedious installations and management of multiple training nodes.

> **Note**
>
> While your initial choice might be to upgrade your instance type to a larger instance with more GPUs (up to 8), you can also scale horizontally by creating a cluster of DLAMI instances. Check out Related information about DLAMI for more information on cluster builds.

Features of DLAMI

The features of AWS Deep Learning AMIs (DLAMI) include preinstalled deep learning frameworks, GPU software, model servers, and model visualization tools.

Preinstalled frameworks

There are currently two primary flavors of DLAMI with other variations related to the operating system (OS) and software versions:

- Deep Learning AMI with Conda – Frameworks installed separately using conda packages and separate Python environments.
- Deep Learning Base AMI – No frameworks installed; only NVIDIA CUDA and other dependencies.

The Deep Learning AMI with Conda uses conda environments to isolate each framework, so you can switch between them at will and not worry about their dependencies conflicting. The Deep Learning AMI with Conda supports the following frameworks:

- PyTorch
- TensorFlow 2

> **Note**
>
> DLAMI no longer supports the following deep learning frameworks: Apache MXNet, Microsoft Cognitive Toolkit (CNTK), Caffe, Caffe2, Theano, Chainer, and Keras.

Preinstalled GPU software

Even if you use a CPU-only instance, the DLAMIs will have NVIDIA CUDA and NVIDIA cuDNN. The installed software is the same regardless of the instance type. Keep in mind that GPU-specific tools work only on an instance that has at least one GPU. For more information about instance types, see Choosing a DLAMI instance type.

For more information about CUDA, see CUDA Installations and Framework Bindings.

Model serving and visualization

Deep Learning AMI with Conda comes preinstalled with model servers for TensorFlow, as well as TensorBoard for model visualizations. For more information, see TensorFlow Serving.

Deep Learning AMIs Release Notes

Here you can find detailed release notes for all currently supported AWS Deep Learning AMIs (DLAMI) options.

For release notes for DLAMI frameworks that we no longer support, see the **Unsupported Framework Release Notes Archive** section of the DLAMI Framework Support Policy page.

Release Notes

- Release Notes for Base DLAMIs
- Release Notes for Single Framework DLAMIs
- Release Notes for Multi-Framework DLAMIs

Release Notes for Base DLAMIs

X86 Base DLAMI Release Notes

Below are the release notes for X86 Base DLAMI:

GPU

- AWS Deep Learning Base AMI with Single CUDA (Amazon Linux 2023)
- AWS Deep Learning Base AMI with Single CUDA (Ubuntu 22.04)
- AWS Deep Learning Base GPU AMI (Amazon Linux 2023)
- AWS Deep Learning Base GPU AMI (Ubuntu 24.04)
- AWS Deep Learning Base GPU AMI (Ubuntu 22.04)
- AWS Deep Learning Base AMI (Amazon Linux 2)
- AWS Deep Learning Base Qualcomm AMI (Amazon Linux 2)

AWS Deep Learning Base AMI with Single CUDA (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) ${YYYY-MM-DD}

> **Note**
>
> This DLAMI is now available on EC2 Image Builder as an Amazon-managed Base Image. For more information, refer to Using Deep Learning AMIs with EC2 Image Builder.

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-with-single-cuda-amazon-linux-2023/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Base AMI with Single CUDA (Amazon Linux
 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260327
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260324
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260320
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260306

- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260220
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260206
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260203
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260120
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260117
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260106
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260102
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251230
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251209
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251118
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251104
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251010
- Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20250930

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0

nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
anyio	4.12.1	4.13.0
boto3	1.42.74	1.42.77

Package Name	Previous Version	New Version
botocore	1.42.74	1.42.77
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
importlib_metadata	9.0.0	8.7.1
inspectorssmplugin	1.0.458-1	1.0.459-1
marshmallow	4.2.2	4.2.3
narwhals	2.18.0	2.18.1
nh3	0.3.3	0.3.4
nltk	3.9.3	3.9.4
pipenv	2026.2.1	2026.2.2
python-discovery	1.2.0	1.2.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260324

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
boto3	1.42.72	1.42.74
botocore	1.42.72	1.42.74
fastapi	0.135.1	0.135.2
inspectorssmplugin	1.0.455-1	1.0.458-1
jaraco.context	6.1.0	6.1.2
jsonpointer	3.0.0	3.1.1
pipdeptree	2.32.0	2.34.0
starlette	0.52.1	1.0.0

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.12.0	2.12.1
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
boto3	1.42.67	1.42.72
botocore	1.42.67	1.42.72
charset-normalizer	3.4.5	3.4.6
dask	2026.1.2	2026.3.0
fonttools	4.62.0	4.62.1
gdrcopy	2.5.1-1	2.5.2-1
gdrcopy-devel	2.5.1-1	2.5.2-1
gdrcopy-kmod	2.5.1-1dkms	2.5.2-1dkms
importlib_metadata	8.7.1	8.8.0
inspectorssmplugin	1.0.443-1	1.0.455-1
jaraco.context	6.1.1	6.1.0

Package Name	Previous Version	New Version
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.0.3	2026.2.1
pyOpenSSL	25.3.0	26.0.0
python-discovery	1.1.3	1.2.0

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	x86_64
kernel_version	6.1.161-183.298.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
python-discovery-1.1.0
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48

Package Name	Previous Version	New Version
async-lru	2.1.0	2.2.0
boto3	1.42.53	1.42.62
botocore	1.42.53	1.42.62
certifi	2026.1.4	2026.2.25
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441-1	1.0.443-1
ipython	9.10.0	9.11.0
isort	7.0.0	8.0.1
jupyterlab	4.5.4	4.5.5
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
plotly	6.5.2	6.6.0
pylint	4.0.4	4.0.5
redis	7.2.0	7.2.1
regex	2026.2.19	2026.2.28
scipy	1.17.0	1.17.1
shap	0.50.0	0.51.0
tifffile	2026.2.16	2026.3.3

Package Name	Previous Version	New Version
typer	0.24.0	0.24.1
virtualenv	20.38.0	21.1.0
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	x86_64
kernel_version	6.1.161-183.298.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2

dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
boto3	1.42.50	1.42.53
botocore	1.42.50	1.42.53
cattrs	25.3.0	26.1.0
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
filelock	3.24.2	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1

Package Name	Previous Version	New Version
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
librt	0.8.0	0.8.1
numba	0.63.1	0.64.0
numpy	2.3.5	2.4.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
pandas	3.0.0	3.0.1
pipdeptree	2.30.0	2.31.0
platformdirs	4.4.0	4.9.2
protobuf	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3

Package Name	Previous Version	New Version
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
python3.12	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
python3.12-devel	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
python3.12-libs	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
regex	2026.1.15	2026.2.19
rich	14.3.2	14.3.3
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
virtualenv	20.37.0	20.38.0

Package Name	Previous Version	New Version
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	x86_64
kernel_version	6.1.159-182.297.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2

dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.40	1.42.43
botocore	1.42.40	1.42.43
datacenter-gpu-manager-4-core	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda13	4.5.1-1	4.5.2-1

Package Name	Previous Version	New Version
datacenter-gpu-manager-4-proprietary	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.1-1	4.5.2-1
fastapi	0.128.0	0.128.2
fsspec	2026.1.0	2026.2.0
id	1.5.0	1.6.1
marshmallow	4.2.1	4.2.2
opencv-python	4.13.0.90	4.13.0.92
pip	26.0	26.0.1
platformdirs	4.5.1	4.4.0
tenacity	9.1.2	9.1.3
tqdm	4.67.2	4.67.3

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260203

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300

operating_system	Amazon Linux 2023.10.20260120
compute_architecture	x86_64
kernel_version	6.1.159-182.297.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.40
botocore	1.42.38	1.42.40
dask	2026.1.1	2026.1.2
inspectorssmplugin	1.0.436-1	1.0.438-1
ipython	9.9.0	9.10.0
narwhals	2.15.0	2.16.0
pip	25.3	26.0
rich	14.3.1	14.3.2
tqdm	4.67.1	4.67.2
wcwidth	0.5.2	0.5.3

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260120

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
black	25.12.0	26.1.0
dill	0.4.0	0.4.1
jaraco.functools	4.4.0	4.0.1
more-itertools	10.8.0	10.3.0
numpy	2.2.6	2.3.5
opencv-python	4.12.0.88	4.13.0.90
packaging	25.0	24.2
pytokens	0.3.0	0.4.0
soupsieve	2.8.1	2.8.3
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.26	1.42.30
botocore	1.42.26	1.42.30
dask	2025.12.0	2026.1.1
inspectorssmplugin	1.0.433-1	1.0.434-1
jupyter_server_terminals	0.5.3	0.5.4
libnvidia-nscq	580.105.08-1	580.126.09-1
librt	0.7.7	0.7.8
more-itertools	10.8.0	10.3.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvlsm	2025.06.10-1	2025.06.11-1

Package Name	Previous Version	New Version
packaging	25.0	24.2
plotly	6.5.1	6.5.2
prometheus_client	0.24.0	0.24.1
regex	2025.11.3	2026.1.15
tifffile	2025.12.20	2026.1.14
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260106

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0

nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Cython	3.2.3	3.2.4
aiohttp	3.13.2	3.13.3

Package Name	Previous Version	New Version
astroid	4.0.2	4.0.3
bokeh	3.8.1	3.8.2
boto3	1.42.19	1.42.22
botocore	1.42.19	1.42.22
celery	5.6.1	5.6.2
certifi	2025.11.12	2026.1.4
filelock	3.20.1	3.20.2
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.431-1	1.0.432-1
ipython	9.8.0	9.9.0
jaraco.functools	4.4.0	4.0.1
marshmallow	4.1.2	4.2.0
more-itertools	10.8.0	10.3.0
pathspec	0.12.1	1.0.0
pillow	12.0.0	12.1.0
platformdirs	4.5.1	4.2.2
ruamel.yaml	0.19.0	0.19.1

Removed Packages

Package Name
ruamel.yaml.clibz

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2

ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.4
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.18	1.42.19
botocore	1.42.18	1.42.19
jaraco.functools	4.0.1	4.4.0
json5	0.12.1	0.13.0
librt	0.7.5	0.7.7
more-itertools	10.8.0	10.3.0

Package Name	Previous Version	New Version
packaging	24.2	25.0
ruamel.yaml	0.18.17	0.19.0
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0

nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.16	1.42.18
botocore	1.42.16	1.42.18

Package Name	Previous Version	New Version
celery	5.6.0	5.6.1
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430-1	1.0.431-1
kombu	5.6.1	5.6.2
more-itertools	10.3.0	10.8.0
packaging	24.2	25.0
platformdirs	4.5.1	4.2.2
psutil	7.2.0	7.2.1
zipp	3.19.2	3.23.0

Removed Packages

Package Name
exceptiongroup

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251209

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64

kernel_version	6.1.158-180.294.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ipython_pygments_lexers-1.1.1
kernel-livepatch-6.1.158-180.294-1.0-0.amzn2023
mpdecimal-2.5.1-3.amzn2023.0.3
pyproject-rpm-macros-1.16.1-1.amzn2023.0.1
python-rpm-macros-3.9-41.amzn2023.0.6
python3-packaging-21.3-2.amzn2023.0.2
python3-rpm-generators-12-15.amzn2023.0.5
python3-rpm-macros-3.9-41.amzn2023.0.6
python3.12-3.12.12-2.amzn2023.0.2
python3.12-devel-3.12.12-2.amzn2023.0.2
python3.12-libs-3.12.12-2.amzn2023.0.2
python3.12-pip-23.2.1-4.amzn2023.0.5
python3.12-pip-wheel-23.2.1-4.amzn2023.0.5
python3.12-setuptools-68.2.2-4.amzn2023.0.3
```

Updated Packages

Package Name	Previous Version	New Version
SecretStorage	3.3.3	3.5.0
acpid	2.0.32-4.amzn2023.0.2	2.0.32-4.amzn2023.0.3

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251117-0.amzn2023	2023.9.20251208-2.amzn2023
amd-ucode-firmware	20210208-117.amzn2023.0.6	20210208-117.amzn2023.0.7
astroid	3.3.11	4.0.2
aws-cfn-bootstrap	2.0-36.amzn2023	2.0-37.amzn2023
binutils	2.41-50.amzn2023.0.4	2.41-50.amzn2023.0.5
black	25.11.0	25.12.0
bleach	6.2.0	6.3.0
bokeh	3.4.3	3.8.1
boto3	1.42.3	1.42.5
botocore	1.42.3	1.42.5
click	8.1.8	8.3.1
containerd	2.1.4-1.amzn2023.0.2	2.1.5-1.amzn2023.0.1
contourpy	1.3.0	1.3.3
curl-minimal	8.11.1-4.amzn2023.0.1	8.11.1-4.amzn2023.0.3
dask	2024.8.0	2025.11.0
ec2-hibinit-agent	1.0.8-0.amzn2023	1.0.10-0.amzn2023
exiv2	0.28.5-128.amzn2023	0.28.5-129.amzn2023
exiv2-libs	0.28.5-128.amzn2023	0.28.5-129.amzn2023

Package Name	Previous Version	New Version
fastapi	0.123.9	0.124.0
filelock	3.19.1	3.20.0
fonttools	4.60.1	4.61.0
fsspec	2025.10.0	2025.12.0
glib2	2.82.2-766.amzn2023	2.82.2-767.amzn2023
greenlet	3.2.4	3.3.0
importlib_metadata	8.7.0	8.0.0
iniconfig	2.1.0	2.3.0
inspectorssmplugin	1.0.419-1	1.0.423-1
ipython	8.18.1	9.8.0
isort	6.1.0	7.0.0
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.0.1	4.3.0
jupyter_core	5.8.1	5.9.1
kernel	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-devel	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-headers	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-libbpf	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023

Package Name	Previous Version	New Version
kernel-livepatch-repo-s3	2023.9.20251117-0.amzn2023	2023.9.20251208-2.amzn2023
kernel-modules-extra	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-modules-extra-common	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-tools	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kiwisolver	1.4.7	1.4.9
libcurl-devel	8.11.1-4.amzn2023.0.1	8.11.1-4.amzn2023.0.3
libcurl-minimal	8.11.1-4.amzn2023.0.1	8.11.1-4.amzn2023.0.3
libpng	1.6.37-10.amzn2023.0.6	1.6.37-10.amzn2023.0.7
librt	0.6.3	0.7.3
libsoup3	3.6.5-52.amzn2023	3.6.5-53.amzn2023
linux-firmware-whence	20210208-117.amzn2023.0.6	20210208-117.amzn2023.0.7
llvmlite	0.43.0	0.46.0
lustre-client	2.15.6-23.amzn2023	2.15.6-25.amzn2023
markdown-it-py	3.0.0	4.0.0
marshmallow	4.0.1	4.1.1

Package Name	Previous Version	New Version
matplotlib	3.9.4	3.10.7
more-itertools	10.8.0	10.3.0
networkx	3.2.1	3.6.1
numba	0.60.0	0.63.0
numpy	2.0.2	2.2.6
nvidia-ml-py	13.580.82	13.590.44
pillow	11.3.0	12.0.0
pipdeptree	2.28.0	2.30.0
pipenv	2025.0.4	2025.1.1
platformdirs	4.4.0	4.5.1
pylint	3.3.9	4.0.4
pytest	8.4.2	9.0.2
python3	3.9.24-1.amzn2023.0.4	3.9.25-1.amzn2023.0.1
python3-awscrt	0.27.6-1.amzn2023.0.1	0.28.4-1.amzn2023.0.1
python3-libs	3.9.24-1.amzn2023.0.4	3.9.25-1.amzn2023.0.1
redis	7.0.1	7.1.0
referencing	0.36.2	0.37.0
rpds-py	0.27.1	0.30.0

Package Name	Previous Version	New Version
rsync	3.4.0-1.amzn2023.0.2	3.4.0-1.amzn2023.0.3
rust-toolset-srpm-macros	1.90.0-1.amzn2023.0.1	1.91.0-1.amzn2023.0.1
scikit-image	0.24.0	0.25.2
scikit-learn	1.6.1	1.7.2
scipy	1.13.1	1.16.3
shap	0.49.1	0.50.0
sqlite	3.40.0-1.amzn2023.0.6	3.40.0-1.amzn2023.0.7
sqlite-devel	3.40.0-1.amzn2023.0.6	3.40.0-1.amzn2023.0.7
sqlite-libs	3.40.0-1.amzn2023.0.6	3.40.0-1.amzn2023.0.7
starlette	0.49.3	0.50.0
system-release	2023.9.20251117-0.amzn2023	2023.9.20251208-2.amzn2023
systemd	252.23-8.amzn2023	252.23-10.amzn2023
systemd-devel	252.23-8.amzn2023	252.23-10.amzn2023
systemd-libs	252.23-8.amzn2023	252.23-10.amzn2023
systemd-networkd	252.23-8.amzn2023	252.23-10.amzn2023
systemd-pam	252.23-8.amzn2023	252.23-10.amzn2023
systemd-resolved	252.23-8.amzn2023	252.23-10.amzn2023

Package Name	Previous Version	New Version
systemd-rpm-macros	252.23-8.amzn2023	252.23-10.amzn2023
systemd-udev	252.23-8.amzn2023	252.23-10.amzn2023
tifffile	2024.8.30	2025.10.16
typing_extensions	4.15.0	4.12.2
urllib3	1.26.20	2.6.1
webcolors	24.11.1	25.10.0
zope.interface	8.0.1	8.1.1

Removed Packages

Package Name
async-timeout
backports-datetime-fromisoformat
importlib_resources
kernel-livepatch-6.1.158-178.288
overrides

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251118

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200

operating_system	Amazon Linux 2023.9.20251110
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
python_location	/usr/bin/python3.9
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
nvidia_gds_version	1.15.0.42
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

ImageIO-2.37.2
kernel-livepatch-6.1.158-178.288-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
Cython	3.1.6	3.2.1
amazon-cloudwatch-agent	1.300059.1-1.amzn2023	1.300060.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
annotated-doc	0.0.3	0.0.4
asttokens	3.0.0	3.0.1
billiard	4.2.2	4.2.3
bind-libs	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-license	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-utils	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
black	25.9.0	25.11.0
boto3	1.40.65	1.40.75
botocore	1.40.65	1.40.75

Package Name	Previous Version	New Version
certifi	2025.10.5	2025.11.12
containerd	2.1.4-1.amzn2023.0.1	2.1.4-1.amzn2023.0.2
coremltools	8.3.0	9.0
datacenter-gpu-manager-4-core	4.4.1-1	4.4.2-1
datacenter-gpu-manager-4-cuda12	4.4.1-1	4.4.2-1
datacenter-gpu-manager-4-cuda13	4.4.1-1	4.4.2-1
datacenter-gpu-manager-4-proprietary	4.4.1-1	4.4.2-1
datacenter-gpu-manager-4-proprietary-cuda12	4.4.1-1	4.4.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.4.1-1	4.4.2-1
dkms	3.2.1-182.amzn2023	3.3.0-183.amzn2023
dnf-plugin-support-info	1.8-1.amzn2023	1.9-1.amzn2023
docker	25.0.13-1.amzn2023.0.1	25.0.13-1.amzn2023.0.2
docutils	0.22.2	0.22.3
dwz	0.14-6.amzn2023.0.2	0.16-2.amzn2023.0.1

Package Name	Previous Version	New Version
fastapi	0.121.0	0.121.2
ibacm	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
infiniband-diags	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
infiniband-diags-compat	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
inspectorssmplugin	1.0.405-1	1.0.413-1
jaraco.functools	4.0.1	4.3.0
kernel	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-devel	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-headers	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-libbpf	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-livepatch-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
kernel-modules-extra	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-modules-extra-common	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-tools	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
keyring	25.6.0	25.7.0

Package Name	Previous Version	New Version
libcap	2.73-1.amzn2023.0.3	2.73-1.amzn2023.0.4
libfabric-aws	2.1.0amzn5.0-1.amzn2023	2.3.1amzn1.0-1.amzn2023
libfabric-aws-devel	2.1.0amzn5.0-1.amzn2023	2.3.1amzn1.0-1.amzn2023
libibumad	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libibverbs	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libibverbs-utils	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libnccl-ofi	1.16.3-1.amzn2023	1.17.1-1.amzn2023
libnvidia-nscq	580.95.05-1	580.105.08-1
librdmacm	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
librdmacm-utils	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libssh	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-config	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-devel	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
lustre-client	2.15.6-21.amzn2023	2.15.6-23.amzn2023
lz4-libs	1.9.4-1.amzn2023.0.2	1.9.4-1.amzn2023.0.3
narwhals	2.10.1	2.12.0
nvlsm	2025.06.6-1	2025.06.10-1

Package Name	Previous Version	New Version
openmpi50-aws	5.0.6-11	5.0.8amzn1-11
pam	1.5.1-8.amzn2023.0.6	1.5.1-8.amzn2023.0.7
pip-tools	7.5.1	7.5.2
platformdirs	4.4.0	4.2.2
plotly	6.3.1	6.5.0
pydantic	2.12.3	2.9.2
pydantic_core	2.41.4	2.23.4
python3	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-libs	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-pyverbs	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
pytokens	0.2.0	0.3.0
rdma-core	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
rdma-core-devel	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
ruamel.yaml.clib	0.2.14	0.2.15
runc	1.3.2-2.amzn2023.0.1	1.3.3-2.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
system-release	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
imageio
kernel-livepatch-6.1.156-177.286

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20251104

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_gds_version	1.15.0.42
nvidia_driver	580.95.05
python_location	/usr/bin/python3.9
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.3050.0
kernel_version	6.1.156-177.286.amzn2023.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1

Package Name	Version
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

annotated-doc-0.0.3
apr-util-lmdb-1.6.3-1.amzn2023.0.2
datacenter-gpu-manager-4-cuda12-4.4.1-1
datacenter-gpu-manager-4-proprietary-cuda12-4.4.1-1
kernel-livepatch-6.1.156-177.286-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
Cython	3.1.4	3.1.6
aiohttp	3.13.0	3.13.2
amazon-cloudwatch-agent	1.300057.2-1.amzn2023	1.300059.1-1.amzn2023
amazon-ec2-net-utils	2.7.0-1.amzn2023.0.1	2.7.1-1.amzn2023.0.1
amazon-linux-repo-s3	2023.9.20250929-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
arrow	1.3.0	1.4.0
audit	3.0.6-1.amzn2023.0.2	3.1.5-1.amzn2023.0.2
audit-libs	3.0.6-1.amzn2023.0.2	3.1.5-1.amzn2023.0.2
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.51	1.40.65
botocore	1.40.51	1.40.65
cloudpickle	3.1.1	3.1.2

Package Name	Previous Version	New Version
containerd	2.0.6-1.amzn2023.0.1	2.1.4-1.amzn2023.0.1
cryptography	46.0.2	46.0.3
docker	25.0.8-1.amzn2023.0.6	25.0.13-1.amzn2023.0.1
fastapi	0.119.0	0.121.0
fsspec	2025.9.0	2025.10.0
giflib	5.2.1-9.amzn2023.0.1	5.2.1-9.amzn2023.0.2
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
grub2-common	2.06-61.amzn2023.0.18	2.06-61.amzn2023.0.20
grub2-efi-x64-ec2	2.06-61.amzn2023.0.18	2.06-61.amzn2023.0.20
grub2-pc-modules	2.06-61.amzn2023.0.18	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.18	2.06-61.amzn2023.0.20
grub2-tools-minimal	2.06-61.amzn2023.0.18	2.06-61.amzn2023.0.20
importlib_metadata	8.7.0	8.0.0
inspectorssmplugin	1.0.400-1	1.0.405-1
ipywidgets	8.1.7	8.1.8
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1

Package Name	Previous Version	New Version
jupyterlab	4.4.9	4.4.10
jupyterlab_server	2.27.3	2.28.0
jupyterlab_widgets	3.0.15	3.0.16
kernel	6.1.153-175.280.amzn2023	6.1.156-177.286.amzn2023
kernel-devel	6.1.153-175.280.amzn2023	6.1.156-177.286.amzn2023
kernel-headers	6.1.153-175.280.amzn2023	6.1.156-177.286.amzn2023
kernel-libbpf	6.1.153-175.280.amzn2023	6.1.156-177.286.amzn2023
kernel-livepatch-repo-s3	2023.9.20250929-0.amzn2023	2023.9.20251027-0.amzn2023
kernel-modules-extra	6.1.153-175.280.amzn2023	6.1.156-177.286.amzn2023
kernel-modules-extra-common	6.1.153-175.280.amzn2023	6.1.156-177.286.amzn2023
kernel-tools	6.1.153-175.280.amzn2023	6.1.156-177.286.amzn2023
lark	1.3.0	1.3.1
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
libgs	9.56.1-7.amzn2023.0.18	9.56.1-7.amzn2023.0.19

Package Name	Previous Version	New Version
libnvidia-container-tools	1.17.8-1	1.18.0-1
libnvidia-container1	1.17.8-1	1.18.0-1
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libtiff	4.4.0-4.amzn2023.0.22	4.4.0-4.amzn2023.0.24
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
matplotlib-inline	0.1.7	0.2.1
narwhals	2.8.0	2.10.1
nh3	0.3.1	0.3.2
nvidia-container-toolkit	1.17.8-1	1.18.0-1
nvidia-container-toolkit-base	1.17.8-1	1.18.0-1

Package Name	Previous Version	New Version
openssl	3.2.2-1.amzn2023.0.1	3.2.2-1.amzn2023.0.2
openssl-devel	3.2.2-1.amzn2023.0.1	3.2.2-1.amzn2023.0.2
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.1	3.2.2-1.amzn2023.0.2
openssl-libs	3.2.2-1.amzn2023.0.1	3.2.2-1.amzn2023.0.2
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1
pip	25.2	25.3
platformdirs	4.2.2	4.4.0
polkit	125-1.amzn2023.0.1	125-1.amzn2023.0.2
polkit-libs	125-1.amzn2023.0.1	125-1.amzn2023.0.2
psutil	7.1.0	7.1.3
pydantic	2.12.1	2.12.3
pydantic_core	2.41.3	2.41.4
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.0.6-1.amzn2023.0.2	3.1.5-1.amzn2023.0.2
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3

Package Name	Previous Version	New Version
python3-pip	21.3.1-2.amzn2023.0.13	21.3.1-2.amzn2023.0.14
python3-pip-wheel	21.3.1-2.amzn2023.0.13	21.3.1-2.amzn2023.0.14
pytokens	0.1.10	0.2.0
redis	6.4.0	7.0.1
regex	2025.9.18	2025.11.3
ruamel.yaml	0.18.15	0.18.16
runc	1.2.6-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
shap	0.48.0	0.49.1
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.48.0	0.49.3
subversion	1.14.2-5.amzn2023.0.3	1.14.5-3.amzn2023.0.1
subversion-libs	1.14.2-5.amzn2023.0.3	1.14.5-3.amzn2023.0.1
system-release	2023.9.20250929-0.amzn2023	2023.9.20251027-0.amzn2023
systemd	252.23-6.amzn2023	252.23-8.amzn2023

Package Name	Previous Version	New Version
systemd-devel	252.23-6.amzn2023	252.23-8.amzn2023
systemd-libs	252.23-6.amzn2023	252.23-8.amzn2023
systemd-networkd	252.23-6.amzn2023	252.23-8.amzn2023
systemd-pam	252.23-6.amzn2023	252.23-8.amzn2023
systemd-resolved	252.23-6.amzn2023	252.23-8.amzn2023
systemd-rpm-macros	252.23-6.amzn2023	252.23-8.amzn2023
systemd-udev	252.23-6.amzn2023	252.23-8.amzn2023
toolz	1.0.0	1.1.0
typer	0.19.2	0.20.0
typing_extensions	4.12.2	4.15.0
virtualenv	20.35.3	20.35.4
widgetsnbextension	4.0.14	4.0.15
xfsprogs	6.12.0-3.amzn2023	6.12.0-3.amzn2023.0.1
xyzservices	2025.4.0	2025.10.0

Removed Packages

Package Name
kernel-livepatch-6.1.153-175.280
types-python-dateutil

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For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_gds_version	1.15.0.42
nvidia_driver	580.95.05
python_location	/usr/bin/python3.9
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.3050.0
kernel_version	6.1.153-175.280.amzn2023.x86_64
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929

Package Name	Version
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
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Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.40.46	1.40.49
botocore	1.40.46	1.40.49
fastapi	0.118.0	0.118.2
gdrcopy	2.5-1	2.5.1-1
gdrcopy-devel	2.5-1	2.5.1-1
gdrcopy-kmod	2.5-1dkms	2.5.1-1dkms
importlib_metadata	8.0.0	8.7.0

Package Name	Previous Version	New Version
jaraco.functools	4.0.1	4.3.0
packaging	24.2	25.0
platformdirs	4.2.2	4.4.0
propcache	0.4.0	0.4.1
rich	14.1.0	14.2.0
tomli	2.0.1	2.3.0
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
virtualenv	20.34.0	20.35.1
websocket-client	1.8.0	1.9.0

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Amazon Linux 2023) 20250930

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	x86_64
kernel_version	6.1.150-174.273.amzn2023.x86_64

Package Name	Version
python_location	/usr/bin/python3.9
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
nvidia_gds_version	1.15.0.42
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

AWS Deep Learning Base AMI with Single CUDA (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) ${YYYY-MM-DD}

> **Note**
>
> This DLAMI is now available on EC2 Image Builder as an Amazon-managed Base Image. For more information, refer to Using Deep Learning AMIs with EC2 Image Builder.

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-with-single-cuda-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) ????????'
 'Name=state,Values=available' --query 'reverse(sort_by(Images, &CreationDate))
[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260327
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260324
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260320
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260307
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260220
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260206
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260130
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260120
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260119
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260106
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260102
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251230
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251209
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251118
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251104
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251010
- Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20250930

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300

operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.64	1.44.67
bind9-dnsutils	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
bind9-host	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
bind9-libs	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
boto3	1.42.74	1.42.77
botocore	1.42.74	1.42.77
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
docker-ce-cli	29.3.0-1~ubuntu.22.04~jammy	29.3.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.3.0-1~ubuntu.22.04~jammy	29.3.1-1~ubuntu.22.04~jammy
importlib_metadata	9.0.0	8.7.1

Package Name	Previous Version	New Version
marshmallow	4.2.2	4.2.3
nh3	0.3.3	0.3.4
python-discovery	1.2.0	1.2.1
requests	2.32.5	2.33.0
tomli	2.4.0	2.4.1

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260324

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44

gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
anyio	4.12.1	4.13.0

Package Name	Previous Version	New Version
awscli	1.44.63	1.44.64
boto3	1.42.73	1.42.74
botocore	1.42.73	1.42.74
fastapi	0.135.1	0.135.2
inspectorssmplugin	1.0.456	1.0.459
jaraco.context	6.1.0	6.1.2
libnss-systemd	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libpam-systemd	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libsystemd0	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libtiff5	4.3.0-6ubuntu0.12	4.3.0-6ubuntu0.13
libudev-dev	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libudev1	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libxnvctrl0	595.45.04-1ubuntu1	595.58.03-1ubuntu1
nltk	3.9.3	3.9.4
pipdeptree	2.32.0	2.34.0
pipenv	2026.2.1	2026.2.2
platformdirs	4.9.4	4.4.0
python3-openssl	21.0.0-1	21.0.0-1ubuntu0.1
redis	7.3.0	7.4.0
starlette	0.52.1	1.0.0

Package Name	Previous Version	New Version
systemd-sysv	249.11-0ubuntu3.17	249.11-0ubuntu3.19
udev	249.11-0ubuntu3.17	249.11-0ubuntu3.19

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2

efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-aws-6.8-tools-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-headers-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-image-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-modules-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-modules-extra-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-tools-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
lustre-client-modules-6.8.0-1050-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
attrs	25.4.0	26.1.0
awscli	1.44.59	1.44.63
boto3	1.42.69	1.42.73
botocore	1.42.69	1.42.73
coreutils	8.32-4.1ubuntu1.2	8.32-4.1ubuntu1.3
dask	2026.1.2	2026.3.0
devscripts	2.22.1ubuntu1	2.22.1ubuntu1.2
docker-compose-plugin	5.1.0-1~ubuntu.22.04~jammy	5.1.1-1~ubuntu.22.04~jammy
importlib_metadata	8.7.1	9.0.0
inspectorssmplugin	1.0.443	1.0.456
linux-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-headers-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-image-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-modules-extra-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0

Package Name	Previous Version	New Version
pipenv	2026.1.0	2026.2.1
python-discovery	1.1.3	1.2.0
snapd	2.73+ubuntu22.04	2.73+ubuntu22.04.1

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1046
linux-aws-6.8-headers-6.8.0-1047
linux-aws-6.8-tools-6.8.0-1046
linux-aws-6.8-tools-6.8.0-1047
linux-headers-6.8.0-1046-aws
linux-headers-6.8.0-1047-aws
linux-image-6.8.0-1046-aws
linux-image-6.8.0-1047-aws
linux-modules-6.8.0-1046-aws
linux-modules-6.8.0-1047-aws
linux-modules-extra-6.8.0-1047-aws
linux-tools-6.8.0-1046-aws
linux-tools-6.8.0-1047-aws
lustre-client-modules-6.8.0-1047-aws

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1047-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-aws-6.8-tools-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-headers-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-image-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-extra-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-tools-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
lustre-client-modules-6.8.0-1047-aws-2.15.6-1fsx28
python-discovery-1.1.1
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
awscli	1.44.43	1.44.53
black	26.1.0	26.3.0
boto3	1.42.53	1.42.63
botocore	1.42.53	1.42.63
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
cpp-12	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
docker-ce-cli	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-compose-plugin	5.0.2-1~ubuntu.22.04~jammy	5.1.0-1~ubuntu.22.04~jammy
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
gcc-12-base	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
git-man	2.34.1-1ubuntu1.15	2.34.1-1ubuntu1.17
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441	1.0.443

Package Name	Previous Version	New Version
intel-microcode	3.20250812.0ubuntu0.22.04.1	3.20260210.0ubuntu0.22.04.1
isort	7.0.0	8.0.1
libasan8	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libatomic1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcc1-0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcurl3-gnutls	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libcurl4	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libgcc-12-dev	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgcc-s1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgfortran5	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgomp1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libitm1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
liblsan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libnss3	3.98-0ubuntu0.22.04.2	3.98-0ubuntu0.22.04.3

Package Name	Previous Version	New Version
libquadmath0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libstdc++6	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libtsan2	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libubsan1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-headers-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-image-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-libc-dev	5.15.0-170.180	5.15.0-171.181
linux-modules-extra-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-tools-common	5.15.0-170.180	5.15.0-171.181
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
nltk	3.9.2	3.9.3
pylint	4.0.4	4.0.5
redis	7.2.0	7.3.0
regex	2026.2.19	2026.2.28

Package Name	Previous Version	New Version
sosreport	4.9.2-0ubuntu0~22.04.1	4.10.2-0ubuntu0~22.04.1
typer	0.24.0	0.24.1
virtualenv	20.38.0	21.1.0
wireless-regdb	2025.07.10-0ubuntu1~22.04.1	2025.10.07-0ubuntu1~22.04.1
yarl	1.22.0	1.23.0

Removed Packages

Package Name
linux-modules-extra-6.8.0-1046-aws
lustre-client-modules-6.8.0-1046-aws

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1046-aws
python_location	/usr/bin/python3.10

nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
awscli	1.44.40	1.44.43
boto3	1.42.50	1.42.53
botocore	1.42.50	1.42.53
cloud-init	25.2-0ubuntu1~22.04.1	25.3-0ubuntu1~22.04.1
filelock	3.24.2	3.24.3
librt	0.8.0	0.8.1
libssh-4	0.9.6-2ubuntu0.22.04.5	0.9.6-2ubuntu0.22.04.6
pipdeptree	2.30.0	2.31.0
regex	2026.1.15	2026.2.19
rich	14.3.2	14.3.3
virtualenv	20.37.0	20.38.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1044
linux-aws-6.8-tools-6.8.0-1044

Package Name
linux-headers-6.8.0-1044-aws
linux-image-6.8.0-1044-aws
linux-modules-6.8.0-1044-aws
linux-tools-6.8.0-1044-aws

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2

efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0
amazon-cloudwatch-agent	1.300063.0b1323-1	1.300064.0b1337-1
awscli	1.44.28	1.44.33
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.43

Package Name	Previous Version	New Version
botocore	1.42.38	1.42.43
dask	2026.1.1	2026.1.2
datacenter-gpu-manager-4-core	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda13	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.1-1	4.5.2-1
docker-ce-cli	29.2.0-1~ubuntu.22.04~jammy	29.2.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.2.0-1~ubuntu.22.04~jammy	29.2.1-1~ubuntu.22.04~jammy
fastapi	0.128.0	0.128.2
fsspec	2026.1.0	2026.2.0
id	1.5.0	1.6.1
inspectorssmplugin	1.0.436	1.0.438
libc-bin	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc-dev-bin	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc-devtools	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc6	2.35-0ubuntu3.12	2.35-0ubuntu3.13

Package Name	Previous Version	New Version
libc6-dev	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libglib2.0-0	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-bin	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-data	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-dev	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-dev-bin	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libldap-2.5-0	2.5.19+dfsg-0ubuntu0.22.04.1	2.5.20+dfsg-0ubuntu0.22.04.1
libldap-common	2.5.19+dfsg-0ubuntu0.22.04.1	2.5.20+dfsg-0ubuntu0.22.04.1
libmysqlclient21	8.0.44-0ubuntu0.22.04.2	8.0.45-0ubuntu0.22.04.1
libpython3.10	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-dev	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-minimal	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-stdlib	3.10.12-1~22.04.13	3.10.12-1~22.04.14
locales	2.35-0ubuntu3.12	2.35-0ubuntu3.13
marshmallow	4.2.1	4.2.2
pip	25.3	26.0.1
python3.10-dev	3.10.12-1~22.04.13	3.10.12-1~22.04.14
python3.10-minimal	3.10.12-1~22.04.13	3.10.12-1~22.04.14

Package Name	Previous Version	New Version
rich	14.3.1	14.3.2
tenacity	9.1.2	9.1.3
tqdm	4.67.1	4.67.3
ubuntu-minimal	1.481.4	1.481.5
ubuntu-server	1.481.4	1.481.5
ubuntu-standard	1.481.4	1.481.5
wcwidth	0.5.2	0.5.3

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/

nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.25	1.44.28
boto3	1.42.35	1.42.38
botocore	1.42.35	1.42.38
cryptography	46.0.3	46.0.4
docker-buildx-plugin	0.30.1-1~ubuntu.22.04~jammy	0.31.1-1~ubuntu.22.04~jammy
inspectorssmplugin	1.0.434	1.0.436
libssl-dev	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
libssl3	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
linux-libc-dev	5.15.0-164.174	5.15.0-168.178
linux-tools-common	5.15.0-164.174	5.15.0-168.178
platformdirs	4.4.0	4.5.1
psutil	7.2.1	7.2.2
pytokens	0.4.0	0.4.1
wcwidth	0.5.0	0.5.2

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260120

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
jaraco.functools	4.0.1	4.4.0
more-itertools	10.3.0	10.8.0
packaging	24.2	25.0
platformdirs	4.5.1	4.2.2
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6
pytokens	0.3.0	0.4.0
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260119

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.16	1.44.20
black	25.12.0	26.1.0
boto3	1.42.26	1.42.30
botocore	1.42.26	1.42.30
dask	2025.12.0	2026.1.1
dill	0.4.0	0.4.1
docker-ce-cli	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
httplib2	0.31.0	0.31.1
importlib_metadata	8.7.1	8.0.0

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.433	1.0.434
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
librt	0.7.7	0.7.8
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvlsm	2025.06.10-1	2025.06.11-1
packaging	25.0	24.2
platformdirs	4.2.2	4.5.1
pyasn1	0.6.1	0.6.2
regex	2025.11.3	2026.1.15
tomli	2.0.1	2.4.0
typing_extensions	4.15.0	4.12.2
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260106

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.13.2	3.13.3
astroid	4.0.2	4.0.3
awscli	1.44.9	1.44.12
boto3	1.42.19	1.42.22
botocore	1.42.19	1.42.22
celery	5.6.1	5.6.2
certifi	2025.11.12	2026.1.4
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy
filelock	3.20.1	3.20.2
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.431	1.0.432

Package Name	Previous Version	New Version
ipython	8.37.0	8.38.0
jaraco.context	5.3.0	6.0.2
marshmallow	4.1.2	4.2.0
pathspec	0.12.1	1.0.0
pillow	12.0.0	12.1.0
ruamel.yaml	0.19.0	0.19.1
tomli	2.3.0	2.0.1
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
ruamel.yaml.clibz

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64

kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.4
```

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.8	1.44.9
boto3	1.42.18	1.42.19
botocore	1.42.18	1.42.19
importlib_metadata	8.0.0	8.7.1
librt	0.7.5	0.7.7
ruamel.yaml	0.18.17	0.19.0
tomli	2.3.0	2.0.1
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.6	1.44.8
boto3	1.42.16	1.42.18
botocore	1.42.16	1.42.18
celery	5.6.0	5.6.1
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430	1.0.431
jaraco.context	5.3.0	6.0.2
jaraco.functools	4.0.1	4.4.0
kombu	5.6.1	5.6.2
more-itertools	10.8.0	10.3.0
platformdirs	4.2.2	4.5.1

Package Name	Previous Version	New Version
psutil	7.2.0	7.2.1
tomli	2.3.0	2.0.1
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251209

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1043-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.9	1.43.11
black	25.11.0	25.12.0
boto3	1.42.3	1.42.5

Package Name	Previous Version	New Version
botocore	1.42.3	1.42.5
fastapi	0.123.9	0.124.0
importlib_metadata	8.0.0	8.7.0
inspectorssmplugin	1.0.419	1.0.423
jaraco.context	6.0.1	5.3.0
librt	0.6.3	0.7.3
marshmallow	4.1.0	4.1.1
more-itertools	10.8.0	10.3.0
nvidia-ml-py	13.580.82	13.590.44
pipenv	2025.0.4	2025.1.1
platformdirs	4.2.2	4.5.1
pytest	9.0.1	9.0.2
typing_extensions	4.12.2	4.15.0
urllib3	2.5.0	2.6.1
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251118

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1042-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
nvidia_gds_version	1.15.0.42
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1042-6.8.0-1042.44~22.04.1
linux-aws-6.8-tools-6.8.0-1042-6.8.0-1042.44~22.04.1
linux-headers-6.8.0-1042-aws-6.8.0-1042.44~22.04.1
linux-image-6.8.0-1042-aws-6.8.0-1042.44~22.04.1
linux-modules-6.8.0-1042-aws-6.8.0-1042.44~22.04.1
linux-modules-extra-6.8.0-1042-aws-6.8.0-1042.44~22.04.1
linux-tools-6.8.0-1042-aws-6.8.0-1042.44~22.04.1
lustre-client-modules-6.8.0-1042-aws-2.15.6-1fsx24
```

Updated Packages

Package Name	Previous Version	New Version
asttokens	3.0.0	3.0.1
awscli	1.42.73	1.42.75
billiard	4.2.2	4.2.3

Package Name	Previous Version	New Version
boto3	1.40.73	1.40.75
botocore	1.40.73	1.40.75
click	8.3.0	8.3.1
docker-buildx-plugin	0.29.1-1~ubuntu.22.04~jammy	0.30.0-1~ubuntu.22.04~jammy
docker-ce-cli	29.0.0-1~ubuntu.22.04~jammy	29.0.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.0.0-1~ubuntu.22.04~jammy	29.0.2-1~ubuntu.22.04~jammy
importlib_metadata	8.0.0	8.7.0
inspectorssmplugin	1.0.411	1.0.413
jaraco.context	5.3.0	6.0.1
keyring	25.6.0	25.7.0
linux-aws	6.8.0-1041.43~22.04.1	6.8.0-1042.44~22.04.1
linux-headers-aws	6.8.0-1041.43~22.04.1	6.8.0-1042.44~22.04.1
linux-image-aws	6.8.0-1041.43~22.04.1	6.8.0-1042.44~22.04.1
linux-modules-extra-aws	6.8.0-1041.43~22.04.1	6.8.0-1042.44~22.04.1
lustre-client-utils	2.15.6-1fsx21	2.15.6-1fsx24
packaging	24.2	25.0

Package Name	Previous Version	New Version
platformdirs	4.5.0	4.2.2
ruamel.yaml.clib	0.2.14	0.2.15
typing_extensions	4.15.0	4.12.2
zope.interface	8.1	8.1.1

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1041
linux-aws-6.8-tools-6.8.0-1041
linux-headers-6.8.0-1041-aws
linux-image-6.8.0-1041-aws
linux-modules-6.8.0-1041-aws
linux-modules-extra-6.8.0-1041-aws
linux-tools-6.8.0-1041-aws
lustre-client-modules-6.8.0-1041-aws

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251104

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5.1

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_gds_version	1.15.0.42
nvidia_driver	580.95.05
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.13.1	3.13.2
amazon-cloudwatch-agent	1.300060.0b1248-1	1.300061.0b1289-1
annotated-doc	0.0.2	0.0.3
awscli	1.42.58	1.42.65
binutils-common	2.38-4ubuntu2.8	2.38-4ubuntu2.10
binutils-x86-64-linux-gnu	2.38-4ubuntu2.8	2.38-4ubuntu2.10
boto3	1.40.58	1.40.65
botocore	1.40.58	1.40.65
cloudpickle	3.1.1	3.1.2
docker-compose-plugin	2.40.2-1~ubuntu.22.04~jammy	2.40.3-1~ubuntu.22.04~jammy
fastapi	0.120.0	0.121.0
fsspec	2025.9.0	2025.10.0
inspectorssmplugin	1.0.401	1.0.405

Package Name	Previous Version	New Version
jaraco.context	6.0.1	5.3.0
libbinutils	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf-nobfd0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libssh-4	0.9.6-2ubuntu0.22.04.4	0.9.6-2ubuntu0.22.04.5
libxml2	2.9.13+dfsg-1ubuntu0.9	2.9.13+dfsg-1ubuntu0.10
linux-libc-dev	5.15.0-160.170	5.15.0-161.171
linux-tools-common	5.15.0-160.170	5.15.0-161.171
marshmallow	4.0.1	4.1.0
nh3	0.3.1	0.3.2
packaging	24.2	25.0
pbr	7.0.1	7.0.3
pip	25.2	25.3
platformdirs	4.2.2	4.5.0
psutil	7.1.1	7.1.3
redis	7.0.0	7.0.1
regex	2025.10.23	2025.11.3
starlette	0.48.0	0.49.3
tomli	2.3.0	2.0.1

Package Name	Previous Version	New Version
typing_extensions	4.12.2	4.15.0
virtualenv	20.35.3	20.35.4
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_gds_version	1.15.0.42
nvidia_driver	580.95.05

Package Name	Version
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.42.46	1.42.49
boto3	1.40.46	1.40.49
botocore	1.40.46	1.40.49
docker-ce-cli	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
fastapi	0.118.0	0.118.2
filelock	3.19.1	3.20.0
gdrcopy	2.5-1	2.5.1
gdrcopy-tests	2.5-1	2.5.1
gdrdrv-dkms	2.5-1	2.5.1
importlib_metadata	8.0.0	8.7.0
libgdrapi	2.5-1	2.5.1
libnss-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libpam-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libsystemd0	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev-dev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev1	249.11-0ubuntu3.16	249.11-0ubuntu3.17
packaging	24.2	25.0

Package Name	Previous Version	New Version
platformdirs	4.4.0	4.2.2
propcache	0.4.0	0.4.1
rich	14.1.0	14.2.0
snapd	2.68.5+ubuntu22.04.1	2.71+ubuntu22.04
systemd-sysv	249.11-0ubuntu3.16	249.11-0ubuntu3.17
tomli	2.2.1	2.3.0
typing_extensions	4.15.0	4.12.2
udev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
virtualenv	20.34.0	20.35.1

Removed Packages

No packages were removed in this release.

Deep Learning Base AMI with Single CUDA (Ubuntu 22.04) 20250930

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1039-aws

Package Name	Version
python_location	/usr/bin/python3.10
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
nvidia_gds_version	1.15.0.42
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

AWS Deep Learning Base GPU AMI (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- G7e Known Issue: Users running multinode workloads on G7e may see errors on G7e.8xlarge instances. For those users, please consider using G7e.12xlarge instead.

AMI Name Format

- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-oss-nvidia-driver-gpu-amazon-linux-2023/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux
 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260327
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260324
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260320
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260306
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260220
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260206
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260203
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260121
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260120
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260116
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260102
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251230
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251209
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251118
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251104
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251010
- Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250923

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
anyio	4.12.1	4.13.0
boto3	1.42.74	1.42.77
botocore	1.42.74	1.42.77
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
inspectorssmplugin	1.0.458-1	1.0.459-1
jaraco.context	6.1.2	6.1.0
marshmallow	4.2.2	4.2.3
narwhals	2.18.0	2.18.1
nh3	0.3.3	0.3.4

Package Name	Previous Version	New Version
nltk	3.9.3	3.9.4
pipenv	2026.2.1	2026.2.2
platformdirs	4.4.0	4.9.4
python-discovery	1.2.0	1.2.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260324

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
boto3	1.42.72	1.42.74
botocore	1.42.72	1.42.74
fastapi	0.135.1	0.135.2
importlib_metadata	8.8.0	9.0.0
inspectorssmplugin	1.0.455-1	1.0.458-1
jaraco.context	6.1.0	6.1.2
jsonpointer	3.0.0	3.1.1
pipdeptree	2.32.0	2.34.0
starlette	0.52.1	1.0.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260302

compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.12.0	2.12.1
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
boto3	1.42.67	1.42.72
botocore	1.42.67	1.42.72
charset-normalizer	3.4.5	3.4.6
dask	2026.1.2	2026.3.0
fonttools	4.62.0	4.62.1
gdrcopy	2.5.1-1	2.5.2-1
gdrcopy-devel	2.5.1-1	2.5.2-1
gdrcopy-kmod	2.5.1-1dkms	2.5.2-1dkms
importlib_metadata	8.7.1	8.8.0
inspectorssmplugin	1.0.443-1	1.0.455-1
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.0.3	2026.2.1
platformdirs	4.4.0	4.9.4

Package Name	Previous Version	New Version
pyOpenSSL	25.3.0	26.0.0
python-discovery	1.1.3	1.2.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-6.1.163-186.299-1.0-0.amzn2023
lazy-loader-0.5
python-discovery-1.1.0

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9

Package Name	Previous Version	New Version
SQLAlchemy	2.0.46	2.0.48
amazon-linux-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
async-lru	2.1.0	2.2.0
black	26.1.0	26.3.0
boto3	1.42.53	1.42.62
botocore	1.42.53	1.42.62
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
container-selinux	2.242.0-1.amzn2023	2.245.0-1.amzn2023
dnf-plugin-support-info	1.10-1.amzn2023	1.11-1.amzn2023
ec2-hibinit-agent	1.0.10-1.amzn2023	1.0.10-2.amzn2023
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441-1	1.0.443-1
ipython	9.10.0	9.11.0
isort	7.0.0	8.0.1
jupyterlab	4.5.4	4.5.5
jxl-pixbuf-loader	0.10.3-54.amzn2023	0.10.3-55.amzn2023

Package Name	Previous Version	New Version
kernel	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-devel	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-headers	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-libbpf	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-livepatch-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
kernel-modules-extra	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-modules-extra-common	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-tools	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
libjxl	0.10.3-54.amzn2023	0.10.3-55.amzn2023
libpng	1.6.37-10.amzn2023.0.10	1.6.37-10.amzn2023.0.11
libsoup3	3.6.5-55.amzn2023	3.6.5-56.amzn2023
libssh	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-config	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4

Package Name	Previous Version	New Version
libssh-devel	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libxml2	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
libxml2-devel	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
lustre-client	2.15.6-25.amzn2023	2.15.6-27.amzn2023
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
platformdirs	4.9.2	4.9.4
plotly	6.5.2	6.6.0
pylint	4.0.4	4.0.5
redis	7.2.0	7.3.0
regex	2026.2.19	2026.2.28
scipy	1.17.0	1.17.1
selinux-policy	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
selinux-policy-targeted	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
shap	0.50.0	0.51.0
system-release	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
systemtap	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1

Package Name	Previous Version	New Version
systemtap-client	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-runtime	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-dtrace	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
tifffile	2026.2.16	2026.3.3
typer	0.24.0	0.24.1
virtualenv	20.38.0	21.1.0
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-6.1.161-183.298
lazy_loader

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260216

compute_architecture	x86_64
kernel_version	6.1.161-183.298.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
boto3	1.42.50	1.42.53
botocore	1.42.50	1.42.53
cattrs	25.3.0	26.1.0
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2

Package Name	Previous Version	New Version
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
filelock	3.24.2	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
graphviz	0.21	2.44.0-25.amzn2023.0.7
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
librt	0.8.0	0.8.1
numba	0.63.1	0.64.0
numpy	2.3.5	2.4.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16

Package Name	Previous Version	New Version
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
pandas	3.0.0	3.0.1
pipdeptree	2.30.0	2.31.0
platformdirs	4.4.0	4.9.2
protobuf	6.33.5	3.19.6-1.amzn2023.0.3
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
python3.12	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
python3.12-devel	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4

Package Name	Previous Version	New Version
python3.12-libs	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
regex	2026.1.15	2026.2.19
rich	14.3.2	14.3.3
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
tzdata	2025.3	2025c-1.amzn2023.0.1
virtualenv	20.37.0	20.38.0
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300

operating_system	Amazon Linux 2023.10.20260120
compute_architecture	x86_64
kernel_version	6.1.159-182.297.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.40	1.42.43
botocore	1.42.40	1.42.43
datacenter-gpu-manager-4-core	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda12	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda13	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda12	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.1-1	4.5.2-1
fastapi	0.128.0	0.128.2
fsspec	2026.1.0	2026.2.0

Package Name	Previous Version	New Version
id	1.5.0	1.6.1
marshmallow	4.2.1	4.2.2
opencv-python	4.13.0.90	4.13.0.92
pip	26.0	26.0.1
tenacity	9.1.2	9.1.3
tqdm	4.67.2	4.67.3

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260203

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	x86_64
kernel_version	6.1.159-182.297.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.40
botocore	1.42.38	1.42.40
dask	2026.1.1	2026.1.2
inspectorssmplugin	1.0.436-1	1.0.438-1
ipython	9.9.0	9.10.0
narwhals	2.15.0	2.16.0
pip	25.3	26.0
platformdirs	4.5.1	4.4.0
rich	14.3.1	14.3.2
tqdm	4.67.1	4.67.2
wcwidth	0.5.2	0.5.3

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
importlib_metadata	8.0.0	8.7.1
jaraco.text	3.12.1	4.0.0
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
setuptools	80.9.0	80.10.1
soupsieve	2.8.2	2.8.3
tomli	2.0.1	2.4.0

Package Name	Previous Version	New Version
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
pytz
typeguard

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260120

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
black	25.12.0	26.1.0
dill	0.4.0	0.4.1
numpy	2.2.6	2.3.5
opencv-python	4.12.0.88	4.13.0.90
pytokens	0.3.0	0.4.0
soupsieve	2.8.1	2.8.2
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
python_location	/usr/bin/python3.12

nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.159-181.297-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Cython	3.2.3	3.2.4
Send2Trash	2.0.0	2.1.0
Werkzeug	3.1.4	3.1.5
aiohttp	3.13.2	3.13.3
amazon-cloudwatch-agent	1.300060.1-1.amzn2023	1.300062.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251208-2.amzn2023	2023.10.20260105-0.amzn2023
amazon-ssm-agent	3.3.3050.0-1.amzn2023	3.3.3572.0-1.amzn2023
anyio	4.12.0	4.12.1
astroid	4.0.2	4.0.3
aws-cfn-bootstrap	2.0-37.amzn2023	2.0-38.amzn2023
bokeh	3.8.1	3.8.2
boto3	1.42.20	1.42.30
botocore	1.42.20	1.42.30
build	1.3.0	1.4.0
celery	5.6.1	5.6.2
certifi	2025.11.12	2026.1.4
containerd	2.1.5-1.amzn2023.0.1	2.1.5-1.amzn2023.0.3

Package Name	Previous Version	New Version
cups-filesystem	2.4.14-1.amzn2023.0.1	2.4.14-1.amzn2023.0.2
cups-libs	2.4.14-1.amzn2023.0.1	2.4.14-1.amzn2023.0.2
curl-minimal	8.11.1-4.amzn2023.0.3	8.15.0-4.amzn2023.0.1
dask	2025.12.0	2026.1.1
datacenter-gpu-manager-4-core	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-cuda12	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-cuda13	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-proprietary	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-proprietary-cuda12	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-proprietary-cuda13	4.4.2-1	4.5.0-1
dnf-plugin-support-info	1.9-1.amzn2023	1.10-1.amzn2023
dnf-plugins-core	4.3.0-13.amzn2023.0.5	4.3.0-13.amzn2023.0.6

Package Name	Previous Version	New Version
dnf-utils	4.3.0-13.amzn2023.0.5	4.3.0-13.amzn2023.0.6
docker	25.0.13-1.amzn2023.0.2	25.0.14-1.amzn2023.0.1
dracut	102-3.amzn2023.0.1	102-3.amzn2023.0.2
dracut-config-generic	102-3.amzn2023.0.1	102-3.amzn2023.0.2
filelock	3.20.2	3.20.3
fsspec	2025.12.0	2026.1.0
glib2	2.82.2-767.amzn2023	2.82.2-769.amzn2023
grub2-common	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
grub2-efi-x64-ec2	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
grub2-pc-modules	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
grub2-tools	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
grub2-tools-minimal	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
inspectorssmplugin	1.0.431-1	1.0.434-1
ipython	9.8.0	9.9.0
jaraco.context	5.3.0	6.1.0

Package Name	Previous Version	New Version
jaraco.functools	4.4.0	4.0.1
jsonschema	4.25.1	4.26.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
kernel	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-devel	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-headers	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-libbpf	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-livepatch-repo-s3	2023.9.20251208-2.amzn2023	2023.10.20260105-0.amzn2023
kernel-modules-extra	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-modules-extra-common	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-tools	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
libcap	2.73-1.amzn2023.0.4	2.73-1.amzn2023.0.5
libcurl-devel	8.11.1-4.amzn2023.0.3	8.15.0-4.amzn2023.0.1

Package Name	Previous Version	New Version
libcurl-minimal	8.11.1-4.amzn2023.0.3	8.15.0-4.amzn2023.0.1
libeconf	0.4.0-1.amzn2023.0.3	0.7.9-1.amzn2023.0.1
libnvidia-nscq	580.105.08-1	580.126.09-1
libpciaccess	0.16-4.amzn2023.0.2	0.16-4.amzn2023.0.3
libpng	1.6.37-10.amzn2023.0.7	1.6.37-10.amzn2023.0.8
librt	0.7.7	0.7.8
marshmallow	4.1.2	4.2.0
more-itertools	10.3.0	10.8.0
narwhals	2.14.0	2.15.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvlsm	2025.06.10-1	2025.06.11-1
openssl	3.2.2-1.amzn2023.0.2	3.2.2-1.amzn2023.0.3
openssl-devel	3.2.2-1.amzn2023.0.2	3.2.2-1.amzn2023.0.3
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.2	3.2.2-1.amzn2023.0.3
openssl-libs	3.2.2-1.amzn2023.0.2	3.2.2-1.amzn2023.0.3
pam	1.5.1-8.amzn2023.0.7	1.5.1-8.amzn2023.0.8
pathspec	0.12.1	1.0.3
platformdirs	4.2.2	4.5.1

Package Name	Previous Version	New Version
plotly	6.5.0	6.5.2
prometheus_client	0.23.1	0.24.1
python3	3.9.25-1.amzn2023.0.1	3.9.25-1.amzn2023.0.3
python3-awscrt	0.28.4-1.amzn2023.0.1	0.29.1-1.amzn2023.0.1
python3-dnf-plugin-versionlock	4.3.0-13.amzn2023.0.5	4.3.0-13.amzn2023.0.6
python3-dnf-plugins-core	4.3.0-13.amzn2023.0.5	4.3.0-13.amzn2023.0.6
python3-libs	3.9.25-1.amzn2023.0.1	3.9.25-1.amzn2023.0.3
python3.12	3.12.12-2.amzn2023.0.2	3.12.12-2.amzn2023.0.3
python3.12-devel	3.12.12-2.amzn2023.0.2	3.12.12-2.amzn2023.0.3
python3.12-libs	3.12.12-2.amzn2023.0.2	3.12.12-2.amzn2023.0.3
regex	2025.11.3	2026.1.15
rng-tools	6.14-1.git.56626083.amzn2023.0.3	6.17-1.amzn2023.0.1
runc	1.3.3-2.amzn2023.0.1	1.3.4-1.amzn2023.0.1
rust-toolset-srpm-macros	1.91.0-1.amzn2023.0.1	1.92.0-1.amzn2023.0.1

Package Name	Previous Version	New Version
scipy	1.16.3	1.17.0
strace	6.8-1.amzn2023.0.1	6.12-1.amzn2023.0.1
system-release	2023.9.20251208-2.amzn2023	2023.10.20260105-0.amzn2023
systemd	252.23-10.amzn2023	252.23-11.amzn2023
systemd-devel	252.23-10.amzn2023	252.23-11.amzn2023
systemd-libs	252.23-10.amzn2023	252.23-11.amzn2023
systemd-networkd	252.23-10.amzn2023	252.23-11.amzn2023
systemd-pam	252.23-10.amzn2023	252.23-11.amzn2023
systemd-resolved	252.23-10.amzn2023	252.23-11.amzn2023
systemd-rpm-macros	252.23-10.amzn2023	252.23-11.amzn2023
systemd-udev	252.23-10.amzn2023	252.23-11.amzn2023
tifffile	2025.12.20	2026.1.14
tomlkit	0.13.3	0.14.0
typer	0.21.0	0.21.1
typing_extensions	4.12.2	4.15.0
urllib3	2.6.2	2.6.3
virtualenv	20.35.4	20.36.1
zope.interface	8.1.1	8.2

Removed Packages

Package Name
fuse
kernel-livepatch-6.1.158-180.294

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2

efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.4
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.18	1.42.19
botocore	1.42.18	1.42.19
importlib_metadata	8.0.0	8.7.1
jaraco.context	6.0.2	5.3.0

Package Name	Previous Version	New Version
json5	0.12.1	0.13.0
librt	0.7.5	0.7.7
packaging	24.2	25.0
platformdirs	4.5.1	4.2.2
ruamel.yaml	0.18.17	0.19.0
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08

default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.16	1.42.18
botocore	1.42.16	1.42.18
celery	5.6.0	5.6.1
fastapi	0.127.0	0.128.0
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.430-1	1.0.431-1
jaraco.context	6.0.2	5.3.0
jaraco.functools	4.4.0	4.0.1
kombu	5.6.1	5.6.2
more-itertools	10.3.0	10.8.0
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
zipp	3.23.0	3.19.2

Removed Packages

Package Name
exceptiongroup

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251209

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ipython_pygments_lexers-1.1.1
kernel-livepatch-6.1.158-180.294-1.0-0.amzn2023
mpdecimal-2.5.1-3.amzn2023.0.3
pyproject-rpm-macros-1.16.1-1.amzn2023.0.1
python-rpm-macros-3.9-41.amzn2023.0.6
python3-packaging-21.3-2.amzn2023.0.2
python3-rpm-generators-12-15.amzn2023.0.5
python3-rpm-macros-3.9-41.amzn2023.0.6
python3.12-3.12.12-2.amzn2023.0.2
python3.12-devel-3.12.12-2.amzn2023.0.2
python3.12-libs-3.12.12-2.amzn2023.0.2
python3.12-pip-23.2.1-4.amzn2023.0.5
python3.12-pip-wheel-23.2.1-4.amzn2023.0.5
python3.12-setuptools-68.2.2-4.amzn2023.0.3
```

Updated Packages

Package Name	Previous Version	New Version
SecretStorage	3.3.3	3.5.0
acpid	2.0.32-4.amzn2023.0.2	2.0.32-4.amzn2023.0.3
amazon-linux-repo-s3	2023.9.20251117-0.amzn2023	2023.9.20251208-2.amzn2023
amd-ucode-firmware	20210208-117.amzn2023.0.6	20210208-117.amzn2023.0.7
astroid	3.3.11	4.0.2
aws-cfn-bootstrap	2.0-36.amzn2023	2.0-37.amzn2023
binutils	2.41-50.amzn2023.0.4	2.41-50.amzn2023.0.5
black	25.11.0	25.12.0
bleach	6.2.0	6.3.0
bokeh	3.4.3	3.8.1
boto3	1.42.3	1.42.5
botocore	1.42.3	1.42.5
click	8.1.8	8.3.1
containerd	2.1.4-1.amzn2023.0.2	2.1.5-1.amzn2023.0.1
contourpy	1.3.0	1.3.3
curl-minimal	8.11.1-4.amzn2023.0.1	8.11.1-4.amzn2023.0.3
dask	2024.8.0	2025.11.0

Package Name	Previous Version	New Version
ec2-hibinit-agent	1.0.8-0.amzn2023	1.0.10-0.amzn2023
exiv2	0.28.5-128.amzn2023	0.28.5-129.amzn2023
exiv2-libs	0.28.5-128.amzn2023	0.28.5-129.amzn2023
fastapi	0.123.9	0.124.0
filelock	3.19.1	3.20.0
fonttools	4.60.1	4.61.0
fsspec	2025.10.0	2025.12.0
glib2	2.82.2-766.amzn2023	2.82.2-767.amzn2023
graphviz	0.21	2.44.0-25.amzn2023.0.7
greenlet	3.2.4	3.3.0
iniconfig	2.1.0	2.3.0
inspectorssmplugin	1.0.419-1	1.0.423-1
ipython	8.18.1	9.8.0
isort	6.1.0	7.0.0
jaraco.context	5.3.0	6.0.1
jupyter_core	5.8.1	5.9.1
kernel	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-devel	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023

Package Name	Previous Version	New Version
kernel-headers	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-libbpf	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-livepatch-repo-s3	2023.9.20251117-0.amzn2023	2023.9.20251208-2.amzn2023
kernel-modules-extra	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-modules-extra-common	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kernel-tools	6.1.158-178.288.amzn2023	6.1.158-180.294.amzn2023
kiwisolver	1.4.7	1.4.9
libcurl-devel	8.11.1-4.amzn2023.0.1	8.11.1-4.amzn2023.0.3
libcurl-minimal	8.11.1-4.amzn2023.0.1	8.11.1-4.amzn2023.0.3
libpng	1.6.37-10.amzn2023.0.6	1.6.37-10.amzn2023.0.7
librt	0.6.3	0.7.3
libsoup3	3.6.5-52.amzn2023	3.6.5-53.amzn2023
linux-firmware-whence	20210208-117.amzn2023.0.6	20210208-117.amzn2023.0.7
llvmlite	0.43.0	0.45.1

Package Name	Previous Version	New Version
lustre-client	2.15.6-23.amzn2023	2.15.6-25.amzn2023
markdown-it-py	3.0.0	4.0.0
marshmallow	4.0.1	4.1.1
matplotlib	3.9.4	3.10.7
networkx	3.2.1	3.6.1
numba	0.60.0	0.62.1
numpy	2.0.2	2.2.6
nvidia-ml-py	13.580.82	13.590.44
pillow	11.3.0	12.0.0
pipdeptree	2.28.0	2.30.0
pipenv	2025.0.4	2025.1.1
platformdirs	4.4.0	4.2.2
protobuf	6.33.1	3.19.6-1.amzn2023.0.1
pylint	3.3.9	4.0.4
pytest	8.4.2	9.0.2
python3	3.9.24-1.amzn2023.0.4	3.9.25-1.amzn2023.0.1
python3-awscrt	0.27.6-1.amzn2023.0.1	0.28.4-1.amzn2023.0.1
python3-libs	3.9.24-1.amzn2023.0.4	3.9.25-1.amzn2023.0.1

Package Name	Previous Version	New Version
redis	7.0.1	7.1.0
referencing	0.36.2	0.37.0
rpds-py	0.27.1	0.30.0
rsync	3.4.0-1.amzn2023.0.2	3.4.0-1.amzn2023.0.3
rust-toolset-srpm-macros	1.90.0-1.amzn2023.0.1	1.91.0-1.amzn2023.0.1
scikit-image	0.24.0	0.25.2
scikit-learn	1.6.1	1.7.2
scipy	1.13.1	1.16.3
shap	0.49.1	0.50.0
sqlite	3.40.0-1.amzn2023.0.6	3.40.0-1.amzn2023.0.7
sqlite-devel	3.40.0-1.amzn2023.0.6	3.40.0-1.amzn2023.0.7
sqlite-libs	3.40.0-1.amzn2023.0.6	3.40.0-1.amzn2023.0.7
starlette	0.49.3	0.50.0
system-release	2023.9.20251117-0.amzn2023	2023.9.20251208-2.amzn2023
systemd	252.23-8.amzn2023	252.23-10.amzn2023
systemd-devel	252.23-8.amzn2023	252.23-10.amzn2023
systemd-libs	252.23-8.amzn2023	252.23-10.amzn2023

Package Name	Previous Version	New Version
systemd-networkd	252.23-8.amzn2023	252.23-10.amzn2023
systemd-pam	252.23-8.amzn2023	252.23-10.amzn2023
systemd-resolved	252.23-8.amzn2023	252.23-10.amzn2023
systemd-rpm-macros	252.23-8.amzn2023	252.23-10.amzn2023
systemd-udev	252.23-8.amzn2023	252.23-10.amzn2023
tifffile	2024.8.30	2025.10.16
tomli	2.3.0	2.0.1
tzdata	2025.2	2025b-1.amzn2023.0.1
urllib3	1.26.20	2.6.1
webcolors	24.11.1	25.10.0
zope.interface	8.0.1	8.1.1

Removed Packages

Package Name
async-timeout
backports-datetime-fromisoformat
importlib_resources
kernel-livepatch-6.1.158-178.288
overrides

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251118

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
python_location	/usr/bin/python3.9
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.15.0.42
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
asttokens	3.0.0	3.0.1
billiard	4.2.2	4.2.3
boto3	1.40.73	1.40.76
botocore	1.40.73	1.40.76
ibacm	59.amzn0-1.amzn2023	60.0-1.amzn2023
importlib_metadata	8.7.0	8.0.0
infiniband-diags	59.amzn0-1.amzn2023	60.0-1.amzn2023
infiniband-diags-compat	59.amzn0-1.amzn2023	60.0-1.amzn2023
inspectorssmplugin	1.0.411-1	1.0.418-1

Package Name	Previous Version	New Version
jupyterlab	4.4.10	4.5.0
kernel-livepatch-repo-s3	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
keyring	25.6.0	25.7.0
libfabric-aws	2.3.1amzn1.0-1.amzn2023	2.3.1amzn2.0-1.amzn2023
libfabric-aws-devel	2.3.1amzn1.0-1.amzn2023	2.3.1amzn2.0-1.amzn2023
libibumad	59.amzn0-1.amzn2023	60.0-1.amzn2023
libibverbs	59.amzn0-1.amzn2023	60.0-1.amzn2023
libibverbs-utils	59.amzn0-1.amzn2023	60.0-1.amzn2023
libnccl-ofi	1.17.1-1.amzn2023	1.17.2-1.amzn2023
librdmacm	59.amzn0-1.amzn2023	60.0-1.amzn2023
librdmacm-utils	59.amzn0-1.amzn2023	60.0-1.amzn2023
more-itertools	10.8.0	10.3.0
narwhals	2.11.0	2.12.0
platformdirs	4.2.2	4.4.0
plotly	6.4.0	6.5.0
python3-pyverbs	59.amzn0-1.amzn2023	60.0-1.amzn2023
rdma-core	59.amzn0-1.amzn2023	60.0-1.amzn2023
rdma-core-devel	59.amzn0-1.amzn2023	60.0-1.amzn2023

Package Name	Previous Version	New Version
ruamel.yaml.clib	0.2.14	0.2.15
system-release	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
tomli	2.3.0	2.0.1

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251104

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_gds_version	1.15.0.42
nvidia_driver	580.95.05
python_location	/usr/bin/python3.9
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0

Package Name	Version
ssm_agent_version	3.3.3050.0
kernel_version	6.1.156-177.286.amzn2023.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.9/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

apr-util-lmdb-1.6.3-1.amzn2023.0.2
kernel-livepatch-6.1.156-177.286-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
audit-libs	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.61	1.40.65
botocore	1.40.61	1.40.65
cloudpickle	3.1.1	3.1.2
fastapi	0.120.2	0.121.0
fsspec	2025.9.0	2025.10.0
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
grub2-common	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-efi-x64-ec2	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20

Package Name	Previous Version	New Version
grub2-pc-modules	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools-minimal	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
importlib_metadata	8.0.0	8.7.0
inspectorssmplugin	1.0.402-1	1.0.405-1
ipywidgets	8.1.7	8.1.8
jaraco.context	5.3.0	6.0.1
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1
jupyterlab_widgets	3.0.15	3.0.16
kernel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-devel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-headers	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-libbpf	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-livepatch-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023

Package Name	Previous Version	New Version
kernel-modules-extra	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-modules-extra-common	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-tools	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
more-itertools	10.8.0	10.3.0
narwhals	2.10.0	2.10.1
nh3	0.3.1	0.3.2

Package Name	Previous Version	New Version
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1
psutil	7.1.2	7.1.3
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
regex	2025.10.23	2025.11.3
runc	1.3.1-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.49.1	0.49.3
system-release	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
widgetsnbextension	4.0.14	4.0.15
xyzservices	2025.4.0	2025.10.0

Package Name	Previous Version	New Version
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-6.1.155-176.282

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_gds_version	1.15.0.42
nvidia_driver	580.95.05
python_location	/usr/bin/python3.9

Package Name	Version
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.3050.0
kernel_version	6.1.153-175.280.amzn2023.x86_64
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.9/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.40.46	1.40.49
botocore	1.40.46	1.40.49
fastapi	0.118.0	0.118.2
gdrcopy	2.5-1	2.5.1-1
gdrcopy-devel	2.5-1	2.5.1-1
gdrcopy-kmod	2.5-1dkms	2.5.1-1dkms
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.3.0	4.0.1
more-itertools	10.8.0	10.3.0
packaging	25.0	24.2
propcache	0.4.0	0.4.1
pydantic	2.11.10	2.12.0
pydantic_core	2.33.2	2.41.1
rich	14.1.0	14.2.0
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
typing_extensions	4.12.2	4.15.0
virtualenv	20.34.0	20.35.1
websocket-client	1.8.0	1.9.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250923

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	x86_64
kernel_version	6.1.150-174.273.amzn2023.x86_64
python_location	/usr/bin/python3.9
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.4,/usr/local/cuda-12.5,/usr/local/cuda-12.6,/usr/local/cuda-12.8
nvidia_gds_version	1.15.0.42
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.1
ofi_nccl_version	1.16.2

Package Name	Version
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
billiard	4.2.1	4.2.2
boto3	1.40.34	1.40.36
botocore	1.40.34	1.40.36
docutils	0.22.1	0.22.2
fastapi	0.116.2	0.117.1
importlib_metadata	8.7.0	8.0.0
inspectorssmplugin	1.0.395-1	1.0.396-1

Package Name	Previous Version	New Version
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.0.1	4.3.0
lark	1.2.2	1.3.0
platformdirs	4.2.2	4.4.0
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
typer	0.17.4	0.19.1
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.13	0.2.14
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-09-19

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250919

Updated

- In CUDA12.8, updated compiled NCCL Version from version 2.26.5 to 2.27.7

Release Date: 2025-08-08

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250808

Added

- Added support for P5.4xlarge instances

Updated

- Upgraded EFA to 1.43.1

Release Date: 2025-07-22

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250722

Updated

- Upgraded Nvidia Driver from 570.158.01 to 570.172.08 to fix CVE's present in the Nvidia Security Bulletin for July

Release Date: 2025-05-15

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250515

Added

- Added support for P6-B200 EC2 instances

Updated

- Upgraded EFA Installer from version 1.38.1 to 1.40.0
- Upgraded GDRCopy from version 2.4 to 2.5
- Upgraded AWS OFI NCCL Plugin from version 1.13.0-aws to 1.14.2-aws
- Updated compiled NCCL Version from version 2.25.1 to 2.26.5
- Updated default CUDA version from version 12.6 to 12.8
- Updated Nvidia DCGM version from 3.3.9 to 4.4.3

Release Date: 2025-04-22

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250421

Updated

- Upgraded Nvidia driver from version 570.124.06 to 570.133.20 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for April 2025

Release Date: 2025-03-31

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250328

Added

- Added support for NVIDIA GPU Direct Storage (GDS)

Release Date: 2025-02-17

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250215

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-02-05

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250205

Added

- Added CUDA toolkit version 12.6 in directory /usr/local/cuda-12.6
- Added support for G5 EC2 Instances

Removed

- CUDA versions 12.1 and 12.2 has been removed from this DLAMI. Customers who require these CUDA toolkit versions can install them directly from NVIDIA using the link below
  - https://developer.nvidia.com/cuda-toolkit-archive

Release Date: 2025-02-03

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250131

Updated

- Upgraded EFA version from 1.37.0 to 1.38.0
  - EFA now bundles the AWS OFI NCCL plugin, which can now be found in /opt/amazon/ofi-nccl rather than the original /opt/aws-ofi-nccl/. If updating your LD_LIBRARY_PATH variable, please ensure that you modify your OFI NCCL location properly.
- Upgraded Nvidia Container Toolkit from 1.17.3 to 1.17.4

Release Date: 2025-01-08

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250107

Updated

- Added support for G4dn instances

Release Date: 2024-12-09

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20241206

Updated

- Upgraded Nvidia Container Toolkit from version 1.17.0 to 1.17.3

Release Date: 2024-11-21

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20241121

Added

- Added support for **P5en EC2 Instances.**

Updated

- Upgraded EFA Installer from version 1.35.0 to 1.37.0
- Upgrade AWS OFI NCCL Plugin from version 1.121-aws to 1.13.0-aws

Release Date: 2024-10-30

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20241030

Added

- Initial release of the Deep Learning Base OSS DLAMI for Amazon Linux 2023

Known Issues

- This DLAMI does not support G4dn and G5 EC2 instances at this time. AWS is aware of an incompatibility that may result in CUDA initialization failures, affecting both G4dn and G5 instance families when using the open source NVIDIA drivers together with a Linux kernel version 6.1 or newer. This issue affects Linux distributions such as Amazon Linux 2023, Ubuntu 22.04 or newer, or SUSE Linux Enterprise Server 15 SP6 or newer, among others.

AWS Deep Learning Base GPU AMI (Ubuntu 24.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- G7e Known Issue: Users running multinode workloads on G7e may see errors on G7e.8xlarge instances. For those users, please consider using G7e.12xlarge instead.

AMI Name Format

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-oss-nvidia-driver-gpu-ubuntu-24.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu
 24.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260327
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260320
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260318
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260307
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260227
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260225

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260206
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260130
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260123
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260121
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260116
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260102
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251230
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251205
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251128
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251118
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251107
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251010
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250926

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1009-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
anyio	4.12.1	4.13.0
bind9-dnsutils	9.18.39-0ubuntu0.24.04.2	9.18.39-0ubuntu0.24.04.3
bind9-host	9.18.39-0ubuntu0.24.04.2	9.18.39-0ubuntu0.24.04.3
bind9-libs	9.18.39-0ubuntu0.24.04.2	9.18.39-0ubuntu0.24.04.3
boto3	1.42.72	1.42.77
botocore	1.42.72	1.42.77
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
devscripts	2.23.7ubuntu0.1	2.23.7ubuntu0.2
docker-ce-cli	29.3.0-1~ubuntu.24.04~noble	29.3.1-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.3.0-1~ubuntu.24.04~noble	29.3.1-1~ubuntu.24.04~noble
docker-compose-plugin	5.1.0-1~ubuntu.24.04~noble	5.1.1-1~ubuntu.24.04~noble
fastapi	0.135.1	0.135.2
importlib_metadata	8.7.1	9.0.0

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.455	1.0.459
jaraco.context	6.1.0	6.1.2
jsonpointer	3.0.0	3.1.1
libnss-systemd	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libpam-systemd	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libsystemd-shared	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libsystemd0	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libtiff6	4.5.1+git230720-4ubuntu2.4	4.5.1+git230720-4ubuntu2.5
libudev-dev	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libudev1	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libxnvctrl0	595.45.04-1ubuntu1	595.58.03-1ubuntu1
narwhals	2.18.0	2.18.1
nh3	0.3.3	0.3.4
pipdeptree	2.32.0	2.34.0
pipenv	2026.2.1	2026.2.2
platformdirs	4.9.4	4.4.0
protobuf	7.34.0	7.34.1
python-discovery	1.2.0	1.2.1
python3-openssl	23.2.0-1	23.2.0-1ubuntu0.1
redis	7.3.0	7.4.0

Package Name	Previous Version	New Version
requests	2.32.5	2.33.0
starlette	0.52.1	1.0.0
systemd-dev	255.4-1ubuntu8.12	255.4-1ubuntu8.14
systemd-resolved	255.4-1ubuntu8.12	255.4-1ubuntu8.14
systemd-sysv	255.4-1ubuntu8.12	255.4-1ubuntu8.14
udev	255.4-1ubuntu8.12	255.4-1ubuntu8.14

Removed Packages

Package Name
linux-aws-6.17-headers-6.17.0-1007
linux-aws-6.17-tools-6.17.0-1007
linux-headers-6.17.0-1007-aws
linux-image-6.17.0-1007-aws
linux-modules-6.17.0-1007-aws
linux-tools-6.17.0-1007-aws

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300

operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1009-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
boto3	1.42.70	1.42.72
botocore	1.42.70	1.42.72
coreutils	9.4-3ubuntu6.1	9.4-3ubuntu6.2
importlib_metadata	8.7.1	9.0.0
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.1.0	2026.2.1
platformdirs	4.9.4	4.4.0
python-discovery	1.1.3	1.2.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260318

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1009-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.17-headers-6.17.0-1009-6.17.0-1009.9~24.04.2
linux-aws-6.17-tools-6.17.0-1009-6.17.0-1009.9~24.04.2
linux-headers-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
linux-image-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
linux-modules-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
linux-modules-extra-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
linux-tools-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
lustre-client-modules-6.17.0-1009-aws-2.15.6-1fsx28
```

Updated Packages

Package Name	Previous Version	New Version
ImageIO	2.37.2	2.37.3
PyJWT	2.11.0	2.12.1
binutils-common	2.42-4ubuntu2.8	2.42-4ubuntu2.10

Package Name	Previous Version	New Version
binutils-x86-64-linux-gnu	2.42-4ubuntu2.8	2.42-4ubuntu2.10
black	26.3.0	26.3.1
bokeh	3.8.2	3.9.0
boto3	1.42.63	1.42.70
botocore	1.42.63	1.42.70
bsdextrautils	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
bsdutils	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
charset-normalizer	3.4.5	3.4.6
containerd.io	2.2.1-1~ubuntu.24.04~noble	2.2.2-1~ubuntu.24.04~noble
dask	2026.1.2	2026.3.0
eject	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
fdisk	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
filelock	3.25.0	3.25.2
fonttools	4.61.1	4.62.1
gdrcopy	2.5.1	2.5.2
gdrcopy-tests	2.5.1	2.5.2
gdrdrv-dkms	2.5.1	2.5.2
inspectorssmplugin	1.0.443	1.0.455
jaraco.context	6.1.0	6.1.1

Package Name	Previous Version	New Version
jupyterlab	4.5.5	4.5.6
kiwisolver	1.4.9	1.5.0
libbinutils	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libblkid-dev	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libblkid1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libctf-nobfd0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libcurl3t64-gnutls	8.5.0-2ubuntu10.7	8.5.0-2ubuntu10.8
libcurl4t64	8.5.0-2ubuntu10.7	8.5.0-2ubuntu10.8
libfdisk1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libfreetype6	2.13.2+dfsg-1build3	2.13.2+dfsg-1ubuntu0.1
libgdrapi	2.5.1	2.5.2
libgprofng0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libmount-dev	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libmount1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libnftables1	1.0.9-1build1	1.0.9-1ubuntu0.1
libnvidia-container-tools	1.18.2-1	1.19.0-1
libnvidia-container1	1.18.2-1	1.19.0-1
libpython3.12-dev	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12

Package Name	Previous Version	New Version
libpython3.12-minimal	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
libpython3.12-stdlib	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
libpython3.12t64	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
libsframe1	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libsmartcols1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libssh-4	0.10.6-2ubuntu0.3	0.10.6-2ubuntu0.4
libuuid1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libxnvctrl0	590.48.01-0ubuntu1	595.45.04-1ubuntu1
linux-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
linux-headers-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
linux-image-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
linux-libc-dev	6.8.0-101.101	6.8.0-106.106
linux-modules-extra-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
linux-tools-common	6.8.0-101.101	6.8.0-106.106
mount	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
narwhals	2.17.0	2.18.0
numpy	2.4.2	2.4.3

Package Name	Previous Version	New Version
nvidia-container-toolkit-base	1.18.2-1	1.19.0-1
nvlsm	2025.06.11-1	2025.10.11-1
openssh-client	9.6p1-3ubuntu13.14	9.6p1-3ubuntu13.15
openssh-server	9.6p1-3ubuntu13.14	9.6p1-3ubuntu13.15
openssh-sftp-server	9.6p1-3ubuntu13.14	9.6p1-3ubuntu13.15
pipenv	2026.0.3	2026.1.0
pyOpenSSL	25.3.0	26.0.0
python-discovery	1.1.1	1.1.3
python3-cryptography	41.0.7-4ubuntu0.1	41.0.7-4ubuntu0.4
python3.12-dev	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
python3.12-minimal	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
python3.12-venv	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
setuptools	82.0.0	82.0.1
snapd	2.73+ubuntu24.04	2.73+ubuntu24.04.2
sudo	1.9.15p5-3ubuntu5.24.04.1	1.9.15p5-3ubuntu5.24.04.2
tornado	6.5.4	6.5.5
uuid-dev	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
uuid-runtime	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
vim-common	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10

Package Name	Previous Version	New Version
vim-runtime	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-tiny	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
virtualenv	21.1.0	21.2.0
xxd	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10

Removed Packages

Package Name
linux-modules-extra-6.17.0-1007-aws
lustre-client-modules-6.17.0-1007-aws

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1007-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

Automat-25.4.16
Cython-3.2.4
Flask-3.1.3

ImageIO-2.37.2

Incremental-24.11.0

Jinja2-3.1.6

MarkupSafe-3.0.3

PyJWT-2.11.0

PyYAML-6.0.3

Pygments-2.19.2

SQLAlchemy-2.0.48

SecretStorage-3.5.0

Send2Trash-2.1.0

Twisted-25.5.0

Werkzeug-3.1.6

aiohappyeyeballs-2.6.1

aiohttp-3.13.3

aiosignal-1.4.0

amqp-5.3.1

annotated-doc-0.0.4

annotated-types-0.7.0

anyio-4.12.1

argon2-cffi-25.1.0

argon2-cffi-bindings-25.1.0

arrow-1.4.0

astroid-4.0.4

asttokens-3.0.1

async-lru-2.2.0

attrs-25.4.0

autocommand-2.2.2

babel-2.18.0

backports.tarfile-1.2.0

beautifulsoup4-4.14.3

billiard-4.2.4

black-26.3.0

bleach-6.3.0

blinker-1.9.0

bokeh-3.8.2

boto-2.49.0

boto3-1.42.63

botocore-1.42.63

build-1.4.0

cattrs-26.1.0

celery-5.6.2

certifi-2026.2.25

cffi-2.0.0

charset-normalizer-3.4.5

click-8.3.1

click-didyoumean-0.3.1

click-plugins-1.1.1.2

click-repl-0.3.0

cloudpickle-3.1.2

comm-0.2.3

configobj-5.0.9

constantly-23.10.4

contourpy-1.3.3

coremltools-9.0

cpplint-2.0.2

cryptography-46.0.5

cycler-0.12.1

dask-2026.1.2

debugpy-1.8.20

decorator-5.2.1

defusedxml-0.7.1

dill-0.4.1

distlib-0.4.0

docutils-0.22.4

entrypoints-0.4

environment-kernels-1.2.0

executing-2.2.1

fastapi-0.135.1

fastjsonschema-2.21.2

filelock-3.25.0

fonttools-4.61.1

fqdn-1.5.1

frozenlist-1.8.0

fsspec-2026.2.0

future-1.0.0

graphviz-0.21

greenlet-3.3.2

h11-0.16.0

html5lib-1.1

httpcore-1.0.9

httpx-0.28.1

hyperlink-21.0.0

id-1.6.1

idna-3.11

importlib_metadata-8.7.1

iniconfig-2.3.0

ipykernel-6.29.5

ipython-9.11.0

ipython-genutils-0.2.0

ipython_pygments_lexers-1.1.1

ipywidgets-8.1.8

isoduration-20.11.0

isort-8.0.1

itsdangerous-2.2.0

jaraco.classes-3.4.0

jaraco.context-6.1.0

jaraco.functools-4.4.0

jaraco.text-4.0.0

jeepney-0.9.0

jmespath-1.1.0

joblib-1.5.3

json5-0.13.0

jsonpointer-3.0.0

jsonschema-4.26.0

jsonschema-specifications-2025.9.1

jupyter-1.1.1

jupyter-console-6.6.3

jupyter-events-0.12.0

jupyter-lsp-2.3.0

jupyter_client-7.4.9

jupyter_core-5.9.1

jupyter_server-2.17.0

jupyter_server_terminals-0.5.4

jupyterlab-4.5.5

jupyterlab_pygments-0.3.0

jupyterlab_server-2.28.0

jupyterlab_widgets-3.0.16

keyring-25.7.0

kiwisolver-1.4.9

kombu-5.6.2

lark-1.3.1

lazy-loader-0.5

librt-0.8.1

llvmlite-0.46.0

locket-1.0.0

markdown-it-py-4.0.0

matplotlib-3.10.8

matplotlib-inline-0.2.1

mccabe-0.7.0

mdurl-0.1.2

mistune-3.2.0

more-itertools-10.8.0

mpmath-1.3.0

multidict-6.7.1

mypy-1.19.1

mypy_extensions-1.1.0

narwhals-2.17.0

nbclassic-1.3.3

nbclient-0.10.4

nbconvert-7.17.0

nbformat-5.10.4

nest-asyncio-1.6.0

networkx-3.6.1

nh3-0.3.3

notebook-6.5.7

notebook_shim-0.2.4

numba-0.64.0

numpy-2.4.2

nvidia-ml-py-13.590.48

opencv-python-4.13.0.92

packaging-26.0

pandas-3.0.1

pandocfilters-1.5.1

parso-0.8.6

partd-1.4.2

pathspec-1.0.4

pexpect-4.9.0

pillow-12.1.1

pip-26.0.1

pip-tools-7.5.3

pipdeptree-2.31.0

pipenv-2026.0.3

platformdirs-4.9.4

plotly-6.6.0

pluggy-1.6.0

prometheus_client-0.24.1

prompt_toolkit-3.0.52

propcache-0.4.1

protobuf-7.34.0

psutil-7.2.2

psycopg2-binary-2.9.11

ptyprocess-0.7.0

pure_eval-0.2.3

pyOpenSSL-25.3.0

pyaml-26.2.1

pycparser-3.0

pydantic-2.12.5

pydantic_core-2.41.5

pygal-3.1.0

pylint-4.0.5

pyparsing-3.3.2

pyproject_hooks-1.2.0

pytest-9.0.2

python-dateutil-2.9.0.post0

python-discovery-1.1.1

python-json-logger-4.0.0

pytokens-0.4.1

pyzmq-27.1.0

readme_renderer-44.0

redis-7.3.0

referencing-0.37.0

requests-2.32.5

requests-toolbelt-1.0.0

rfc3339-validator-0.1.4

rfc3986-2.0.0

rfc3986-validator-0.1.1

rfc3987-syntax-1.1.0

rich-14.3.3

rpds-py-0.30.0

s3transfer-0.16.0

scikit-image-0.26.0

scikit-learn-1.8.0

scipy-1.17.1

seaborn-0.13.2

setuptools-82.0.0

shap-0.51.0

six-1.17.0

slicer-0.0.8

soupsieve-2.8.3

stack-data-0.6.3

starlette-0.52.1

sympy-1.14.0

terminado-0.18.1

threadpoolctl-3.6.0

tifffile-2026.3.3

tinycss2-1.4.0

tomli-2.4.0

tomlkit-0.14.0

toolz-1.1.0

tornado-6.5.4

tqdm-4.67.3

traitlets-5.14.3

twine-6.2.0

typing-inspection-0.4.2

typing_extensions-4.15.0

tzdata-2025.3

tzlocal-5.3.1

uri-template-1.3.0

urllib3-2.6.3

vine-5.1.0

virtualenv-21.1.0

wcwidth-0.6.0
webcolors-25.10.0
webencodings-0.5.1
websocket-client-1.9.0
wheel-0.46.3
widgetsnbextension-4.0.15
xyzservices-2025.11.0
yapf-0.43.0
yarl-1.23.0
zipp-3.23.0
zope.interface-8.2

Updated Packages

Package Name	Previous Version	New Version
docker-ce-cli	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
intel-microcode	3.20250812.0ubuntu0.24.04.1	3.20260210.0ubuntu0.24.04.1
libnss3	3.98-1build1	3.98-1ubuntu0.1
linux-base	4.5ubuntu9+24.04.1	4.5ubuntu9+24.04.2

Package Name	Previous Version	New Version
sosreport	4.9.2-0ubuntu0~24.04.1	4.10.2-0ubuntu0~24.04.1

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1007-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2

efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
python3-software-properties	0.99.49.3	0.99.49.4
software-properties-common	0.99.49.3	0.99.49.4

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260225

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1007-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.17-headers-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-aws-6.17-tools-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-headers-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-image-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-extra-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-tools-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
lustre-client-modules-6.17.0-1007-aws-2.15.6-1fsx28
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
cloud-init	25.2-0ubuntu1~24.04.1	25.3-0ubuntu1~24.04.1

Package Name	Previous Version	New Version
cpp-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
cpp-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
docker-compose-plugin	5.0.2-1~ubuntu.24.04~noble	5.1.0-1~ubuntu.24.04~noble
g++-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
g++-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-base	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-14-base	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
gfortran-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gfortran-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
inspectorssmplugin	1.0.440	1.0.443
libasan8	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libatomic1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1

Package Name	Previous Version	New Version
libcc1-0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcurl3t64-gnutls	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libcurl4t64	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libexpat1	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libexpat1-dev	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libgcc-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgcc-s1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgfortran-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgfortran5	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgnutls30t64	3.8.3-1.1ubuntu3.4	3.8.3-1.1ubuntu3.5
libgomp1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libhwasan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libitm1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
liblsan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1

Package Name	Previous Version	New Version
libquadmath0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libssh-4	0.10.6-2ubuntu0.2	0.10.6-2ubuntu0.3
libstdc++-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libstdc++6	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libtsan2	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libubsan1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
linux-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-headers-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-image-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-libc-dev	6.8.0-100.100	6.8.0-101.101
linux-modules-extra-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-tools-common	6.8.0-100.100	6.8.0-101.101
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
systemd-hwe-hwdb	255.1.6	255.1.7

Package Name	Previous Version	New Version
wireless-regdb	2025.07.10-0ubuntu1~24.04.1	2025.10.07-0ubuntu1~24.04.1

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1018
linux-aws-6.14-tools-6.14.0-1018
linux-headers-6.14.0-1018-aws
linux-image-6.14.0-1018-aws
linux-modules-6.14.0-1018-aws
linux-modules-extra-6.14.0-1018-aws
linux-tools-6.14.0-1018-aws
lustre-client-modules-6.14.0-1018-aws

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64

kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300063.0b1323-1	1.300064.0b1337-1
datacenter-gpu-manager-4-core	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda12	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda13	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda12	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.1-1	4.5.2-1
devscripts	2.23.7	2.23.7ubuntu0.1
docker-ce-cli	29.2.0-1~ubuntu.24.04~noble	29.2.1-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.2.0-1~ubuntu.24.04~noble	29.2.1-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8

Package Name	Previous Version	New Version
inetutils-telnet	2.5-3ubuntu4	2.5-3ubuntu4.1
inspectorssmplugin	1.0.436	1.0.438
libc-bin	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc-dev-bin	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc-devtools	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc6	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc6-dev	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libdrm-common	2.4.122-1~ubuntu0.24.04.2	2.4.125-1ubuntu0.1~24.04.1
libdrm2	2.4.122-1~ubuntu0.24.04.2	2.4.125-1ubuntu0.1~24.04.1
libfwupd2	1.9.31-0ubuntu1~24.04.1	1.9.33-0ubuntu1~24.04.1ubuntu1
libglib2.0-0t64	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-bin	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-data	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libldap-common	2.6.7+dfsg-1~exp1ubuntu8.2	2.6.10+dfsg-0ubuntu0.24.04.1
libldap2	2.6.7+dfsg-1~exp1ubuntu8.2	2.6.10+dfsg-0ubuntu0.24.04.1
libmysqlclient21	8.0.44-0ubuntu0.24.04.2	8.0.45-0ubuntu0.24.04.1
libpng16-16t64	1.6.43-5ubuntu0.3	1.6.43-5ubuntu0.4

Package Name	Previous Version	New Version
libpython3.12-dev	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libpython3.12-minimal	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libpython3.12-stdlib	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libpython3.12t64	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
linux-libc-dev	6.8.0-94.96	6.8.0-100.100
linux-tools-common	6.8.0-94.96	6.8.0-100.100
locales	2.39-0ubuntu8.6	2.39-0ubuntu8.7
python-apt-common	2.7.7ubuntu5.1	2.7.7ubuntu5.2
python3-apt	2.7.7ubuntu5.1	2.7.7ubuntu5.2
python3-distupgrade	24.04.27	24.04.28
python3.12-dev	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
python3.12-minimal	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
python3.12-venv	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
telnet	2.5-3ubuntu4	2.5-3ubuntu4.1
ubuntu-release-upgrader-core	24.04.27	24.04.28

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
datacenter-gpu-manager-4-core	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-cuda12	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-cuda13	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda12	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.0-1	4.5.1-1

Package Name	Previous Version	New Version
docker-buildx-plugin	0.30.1-1~ubuntu.24.04~noble	0.31.1-1~ubuntu.24.04~noble
docker-ce-cli	29.1.5-1~ubuntu.24.04~noble	29.2.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.5-1~ubuntu.24.04~noble	29.2.0-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.434	1.0.436
libnuma1	2.0.18-1build1	2.0.18-1ubuntu0.24.04.1
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libssl-dev	3.0.13-0ubuntu3.6	3.0.13-0ubuntu3.7
libssl3t64	3.0.13-0ubuntu3.6	3.0.13-0ubuntu3.7
linux-libc-dev	6.8.0-90.91	6.8.0-94.96
linux-tools-common	6.8.0-90.91	6.8.0-94.96
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
screen	4.9.1-1build1	4.9.1-1ubuntu1

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-compose-plugin	5.0.1-1~ubuntu.24.04~noble	5.0.2-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-0t64	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-data	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libxml2	2.9.14+dfsg-1.3ubuntu3.6	2.9.14+dfsg-1.3ubuntu3.7
python3-pyasn1	0.4.8-4	0.4.8-4ubuntu0.1

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
`docker-ce-cli`	`29.1.4-1~ubuntu.24.04~noble`	`29.1.5-1~ubuntu.24.04~noble`
`docker-ce-rootless-extras`	`29.1.4-1~ubuntu.24.04~noble`	`29.1.5-1~ubuntu.24.04~noble`
`inspectorssmplugin`	`1.0.433`	`1.0.434`
`java-21-amazon-corretto-jdk`	`21.0.9.11-1`	`21.0.10.7-1`

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-ce-cli	29.1.3-1~ubuntu.24.04~noble	29.1.4-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.3-1~ubuntu.24.04~noble	29.1.4-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.432	1.0.433
klibc-utils	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
kpartx	0.9.4-5ubuntu8	0.9.4-5ubuntu8.1
libheif-plugin-aomdec	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif-plugin-aomenc	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif-plugin-libde265	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2

Package Name	Previous Version	New Version
libheif1	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libklibc	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libpng16-16t64	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpython3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-stdlib	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12t64	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libtasn1-6	4.19.0-3ubuntu0.24.04.1	4.19.0-3ubuntu0.24.04.2
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvlsm	2025.06.10-1	2025.06.11-1
python3-urllib3	2.0.7-1ubuntu0.3	2.0.7-1ubuntu0.6
python3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-venv	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12

nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.430	1.0.431

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1017-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2

efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
binutils-common	2.42-4ubuntu2.6	2.42-4ubuntu2.7
binutils-x86-64-linux-gnu	2.42-4ubuntu2.6	2.42-4ubuntu2.7
containerd.io	2.1.5-1~ubuntu.24.04~noble	2.2.0-2~ubuntu.24.04~noble
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1

Package Name	Previous Version	New Version
docker-ce-cli	29.1.0-1~ubuntu.24.04~noble	29.1.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.0-1~ubuntu.24.04~noble	29.1.2-1~ubuntu.24.04~noble
docker-compose-plugin	2.40.3-1~ubuntu.24.04~noble	5.0.0-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
landscape-common	24.02-0ubuntu5.6	24.02-0ubuntu5.7
libbinutils	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libctf-nobfd0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libctf0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libglib2.0-0t64	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-bin	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-data	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libgprofng0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libmysqlclient21	8.0.44-0ubuntu0.24.04.1	8.0.44-0ubuntu0.24.04.2
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
libsframe1	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1

Package Name	Previous Version	New Version
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-fabricmanager	580.95.05-1	580.105.08-1
wireless-regdb	2024.10.07-0ubuntu2~24.04.1	2025.07.10-0ubuntu1~24.04.1

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1015
linux-aws-6.14-tools-6.14.0-1015
linux-headers-6.14.0-1015-aws
linux-image-6.14.0-1015-aws
linux-modules-6.14.0-1015-aws
linux-tools-6.14.0-1015-aws

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251128

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64

kernel_version	6.14.0-1017-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.14-headers-6.14.0-1017-6.14.0-1017.17~24.04.1
linux-aws-6.14-tools-6.14.0-1017-6.14.0-1017.17~24.04.1
linux-headers-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
linux-image-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
linux-modules-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
linux-modules-extra-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
linux-tools-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
lustre-client-modules-6.14.0-1017-aws-2.15.6-1fsx25
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300061.0b1289-1	1.300062.0b1304-1
docker-buildx-plugin	0.30.0-1~ubuntu.24.04~noble	0.30.1-1~ubuntu.24.04~noble
docker-ce-cli	29.0.2-1~ubuntu.24.04~noble	29.1.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.0.2-1~ubuntu.24.04~noble	29.1.0-1~ubuntu.24.04~noble
gir1.2-packagekitglib-1.0	1.2.8-2ubuntu1.2	1.2.8-2ubuntu1.4
inspectorssmplugin	1.0.418	1.0.419

Package Name	Previous Version	New Version
libdrm-common	2.4.122-1~ubuntu0.24.04.1	2.4.122-1~ubuntu0.24.04.2
libdrm2	2.4.122-1~ubuntu0.24.04.1	2.4.122-1~ubuntu0.24.04.2
libmysqlclient21	8.0.43-0ubuntu0.24.04.2	8.0.44-0ubuntu0.24.04.1
libpackagekit-glib2-18	1.2.8-2ubuntu1.2	1.2.8-2ubuntu1.4
libpython3.12-dev	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
libpython3.12-minimal	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
libpython3.12-stdlib	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
libpython3.12t64	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
linux-aws	6.14.0-1016.16~24.04.1	6.14.0-1017.17~24.04.1
linux-headers-aws	6.14.0-1016.16~24.04.1	6.14.0-1017.17~24.04.1
linux-image-aws	6.14.0-1016.16~24.04.1	6.14.0-1017.17~24.04.1
linux-libc-dev	6.8.0-87.88	6.8.0-88.89
linux-modules-extra-aws	6.14.0-1016.16~24.04.1	6.14.0-1017.17~24.04.1
linux-tools-common	6.8.0-87.88	6.8.0-88.89
lustre-client-utils	2.15.6-1fsx24	2.15.6-1fsx25

Package Name	Previous Version	New Version
packagekit-tools	1.2.8-2ubuntu1.2	1.2.8-2ubuntu1.4
python3.12-dev	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
python3.12-minimal	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
python3.12-venv	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
ubuntu-pro-client	36ubuntu0~24.04	37.1ubuntu0~24.04
ubuntu-pro-client-l10n	36ubuntu0~24.04	37.1ubuntu0~24.04

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1016
linux-aws-6.14-tools-6.14.0-1016
linux-headers-6.14.0-1016-aws
linux-image-6.14.0-1016-aws
linux-modules-6.14.0-1016-aws
linux-modules-extra-6.14.0-1016-aws
linux-tools-6.14.0-1016-aws
lustre-client-modules-6.14.0-1016-aws

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251118

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1016-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-buildx-plugin	0.29.1-1~ubuntu.24.04~noble	0.30.0-1~ubuntu.24.04~noble
docker-ce-cli	29.0.0-1~ubuntu.24.04~noble	29.0.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.0.0-1~ubuntu.24.04~noble	29.0.2-1~ubuntu.24.04~noble
ibacm	59.amzn0-1	60.0-1
ibverbs-providers	59.amzn0-1	60.0-1
ibverbs-utils	59.amzn0-1	60.0-1
infiniband-diags	59.amzn0-1	60.0-1
inspectorssmplugin	1.0.411	1.0.418
libfabric-aws-bin	2.3.1amzn1.0	2.3.1amzn2.0

Package Name	Previous Version	New Version
libfabric-aws-dev	2.3.1amzn1.0	2.3.1amzn2.0
libfabric1-aws	2.3.1amzn1.0	2.3.1amzn2.0
libibmad-dev	59.amzn0-1	60.0-1
libibmad5	59.amzn0-1	60.0-1
libibnetdisc-dev	59.amzn0-1	60.0-1
libibnetdisc5	59.amzn0-1	60.0-1
libibumad-dev	59.amzn0-1	60.0-1
libibumad3	59.amzn0-1	60.0-1
libibverbs-dev	59.amzn0-1	60.0-1
libibverbs1	59.amzn0-1	60.0-1
libnccl-ofi	1.17.1-1	1.17.2-1
librdmacm-dev	59.amzn0-1	60.0-1
librdmacm1	59.amzn0-1	60.0-1
lustre-client-modules-6.14.0-1016-aws	2.15.6-1fsx22	2.15.6-1fsx24
lustre-client-utils	2.15.6-1fsx22	2.15.6-1fsx24
rdmacm-utils	59.amzn0-1	60.0-1

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.12
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.2299.0
kernel_version	6.14.0-1016-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 24.04.3 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300060.0b1248-1	1.300061.0b1289-1
containerd.io	1.7.28-1~ubuntu.24.04~noble	1.7.29-1~ubuntu.24.04~noble
dkms	3.2.1-1ubuntu2	3.2.2-1ubuntu1
docker-ce-cli	28.5.1-1~ubuntu.24.04~noble	28.5.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	28.5.1-1~ubuntu.24.04~noble	28.5.2-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.402	1.0.410
java-21-amazon-corretto-jdk	21.0.9.10-1	21.0.9.11-1
libxnvctrl0	580.95.05-0ubuntu1	580.105.08-0ubuntu1

Package Name	Previous Version	New Version
nvlsm	2025.06.6-1	2025.06.10-1

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.12
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0

Package Name	Version
ssm_agent_version	3.3.2299.0
kernel_version	6.14.0-1014-aws
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 24.04.3 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-ce-cli	28.5.0-1~ubuntu.24.04~noble	28.5.1-1~ubuntu.24.04~noble

Package Name	Previous Version	New Version
docker-ce-rootless-extras	28.5.0-1~ubuntu.24.04~noble	28.5.1-1~ubuntu.24.04~noble
gdrcopy	2.5-1	2.5.1
gdrcopy-tests	2.5-1	2.5.1
gdrdrv-dkms	2.5-1	2.5.1
libgdrapi	2.5-1	2.5.1
libnss-systemd	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libpam-systemd	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libsystemd-shared	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libsystemd0	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libudev-dev	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libudev1	255.4-1ubuntu8.10	255.4-1ubuntu8.11
snapd	2.68.5+ubuntu24.04.1	2.71+ubuntu24.04
systemd-dev	255.4-1ubuntu8.10	255.4-1ubuntu8.11
systemd-resolved	255.4-1ubuntu8.10	255.4-1ubuntu8.11
systemd-sysv	255.4-1ubuntu8.10	255.4-1ubuntu8.11
tcpdump	4.99.4-3ubuntu4	4.99.4-3ubuntu4.24.04.1
udev	255.4-1ubuntu8.10	255.4-1ubuntu8.11

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1013-aws
python_location	/usr/bin/python3.12
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.14-headers-6.14.0-1013-6.14.0-1013.13~24.04.1
linux-aws-6.14-tools-6.14.0-1013-6.14.0-1013.13~24.04.1
linux-headers-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-image-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-modules-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-modules-extra-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-tools-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
```

Updated Packages

Package Name	Previous Version	New Version
dpkg-dev	1.22.6ubuntu6.2	1.22.6ubuntu6.5
inspectorssmplugin	1.0.395	1.0.396
libc-bin	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc-dev-bin	2.39-0ubuntu8.5	2.39-0ubuntu8.6

Package Name	Previous Version	New Version
libc-devtools	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc6	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc6-dev	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libdpkg-perl	1.22.6ubuntu6.2	1.22.6ubuntu6.5
libpam-modules	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
libpam-modules-bin	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
libpam-runtime	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
libpam0g	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
linux-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-headers-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-image-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-libc-dev	6.8.0-83.83	6.8.0-84.84
linux-modules-extra-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-tools-common	6.8.0-83.83	6.8.0-84.84
locales	2.39-0ubuntu8.5	2.39-0ubuntu8.6
python3-pip	24.0+dfsg-1ubuntu1.2	24.0+dfsg-1ubuntu1.3
python3-pip-whl	24.0+dfsg-1ubuntu1.2	24.0+dfsg-1ubuntu1.3

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1012
linux-aws-6.14-tools-6.14.0-1012
linux-headers-6.14.0-1012-aws
linux-image-6.14.0-1012-aws
linux-modules-6.14.0-1012-aws
linux-modules-extra-6.14.0-1012-aws
linux-tools-6.14.0-1012-aws

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-09-19

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250919

Updated

- In CUDA12.8, updated compiled NCCL Version from version 2.26.5 to 2.27.7

Release Date: 2025-08-08

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250806

Added

- Added support for P5.4xlarge instances

Updated

- Upgraded EFA to 1.43.1

Removed

- Amazon FSx for Lustre support has been removed in this release due to incompatibility with the latest Ubuntu 24.04 kernel versions. NVIDIA GDS and FS are currently not supported on the latest Ubuntu 24.04 kernel versions. Support for FSx, GDS, and FS will be reinstated once the latest kernel version is supported.

Release Date: 2025-07-22

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250722

Updated

- Upgraded Nvidia Driver from 570.158.01 to 570.172.08 to fix CVE's present in the Nvidia Security Bulletin for July

Release Date: 2025-05-22

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250522

Added

- Added support for P6-B200 EC2 instances

Updated

- Upgraded EFA Installer from version 1.40.0 to 1.41.0
- Updated compiled NCCL Version from version 2.25.1 to 2.26.5
- Updated Nvidia DCGM version from 3.3.9 to 4.4.3

Release Date: 2025-05-13

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250513

Added

- Initial release of the Deep Learning Base OSS DLAMI for Ubuntu 24.04

AWS Deep Learning Base GPU AMI (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- G7e Known Issue: Users running multinode workloads on G7e may see errors on G7e.8xlarge instances. For those users, please consider using G7e.12xlarge instead.

AMI Name Format

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-oss-nvidia-driver-gpu-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu
```

```
22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
&CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260327
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260324
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260320
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260307
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260220
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260130
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260121
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260120
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260119
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260106
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251230
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251209
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251118
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251104
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251007
- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250923

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	x86_64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
anyio	4.12.1	4.13.0
awscli	1.44.64	1.44.67
bind9-dnsutils	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
bind9-host	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
bind9-libs	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
boto3	1.42.74	1.42.77
botocore	1.42.74	1.42.77
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
docker-ce-cli	29.3.0-1~ubuntu.22.04~jammy	29.3.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.3.0-1~ubuntu.22.04~jammy	29.3.1-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.458	1.0.459
jaraco.context	6.1.2	6.1.0
libnss-systemd	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libpam-systemd	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libsystemd0	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libudev-dev	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libudev1	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libxnvctrl0	595.45.04-1ubuntu1	595.58.03-1ubuntu1
marshmallow	4.2.2	4.2.3
nh3	0.3.3	0.3.4
nltk	3.9.3	3.9.4
pipenv	2026.2.1	2026.2.2
python-discovery	1.2.0	1.2.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0
systemd-sysv	249.11-0ubuntu3.17	249.11-0ubuntu3.19
udev	249.11-0ubuntu3.17	249.11-0ubuntu3.19

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260324

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3

ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
awscli	1.44.63	1.44.64
boto3	1.42.73	1.42.74
botocore	1.42.73	1.42.74
fastapi	0.135.1	0.135.2
inspectorssmplugin	1.0.456	1.0.458
jaraco.context	6.1.0	6.1.2
libtiff5	4.3.0-6ubuntu0.12	4.3.0-6ubuntu0.13
pipdeptree	2.32.0	2.34.0

Package Name	Previous Version	New Version
platformdirs	4.9.4	4.4.0
python3-openssl	21.0.0-1	21.0.0-1ubuntu0.1
starlette	0.52.1	1.0.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.17.0.44

gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-aws-6.8-tools-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-headers-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-image-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-modules-6.8.0-1050-aws-6.8.0-1050.53~22.04.1

linux-modules-extra-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-tools-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
lustre-client-modules-6.8.0-1050-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
attrs	25.4.0	26.1.0
awscli	1.44.59	1.44.63
boto3	1.42.69	1.42.73
botocore	1.42.69	1.42.73
coreutils	8.32-4.1ubuntu1.2	8.32-4.1ubuntu1.3
dask	2026.1.2	2026.3.0
devscripts	2.22.1ubuntu1	2.22.1ubuntu1.2
docker-compose-plugin	5.1.0-1~ubuntu.22.04~jammy	5.1.1-1~ubuntu.22.04~jammy
importlib_metadata	8.7.1	9.0.0
inspectorssmplugin	1.0.443	1.0.456
linux-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-headers-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-image-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1

Package Name	Previous Version	New Version
linux-modules-extra-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.1.0	2026.2.1
platformdirs	4.4.0	4.9.4
python-discovery	1.1.3	1.2.0
snapd	2.73+ubuntu22.04	2.73+ubuntu22.04.1
vim-common	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-runtime	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-tiny	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
xxd	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1046
linux-aws-6.8-headers-6.8.0-1047
linux-aws-6.8-tools-6.8.0-1046
linux-aws-6.8-tools-6.8.0-1047
linux-headers-6.8.0-1046-aws
linux-headers-6.8.0-1047-aws

Package Name
linux-image-6.8.0-1046-aws
linux-image-6.8.0-1047-aws
linux-modules-6.8.0-1046-aws
linux-modules-6.8.0-1047-aws
linux-modules-extra-6.8.0-1047-aws
linux-tools-6.8.0-1046-aws
linux-tools-6.8.0-1047-aws
lustre-client-modules-6.8.0-1047-aws

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1047-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-aws-6.8-tools-6.8.0-1047-6.8.0-1047.50~22.04.1

linux-headers-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-image-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-extra-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-tools-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
lustre-client-modules-6.8.0-1047-aws-2.15.6-1fsx28
python-discovery-1.1.1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
awscli	1.44.43	1.44.53
black	26.1.0	26.3.0
boto3	1.42.53	1.42.63
botocore	1.42.53	1.42.63
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
cpp-12	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
docker-ce-cli	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-compose-plugin	5.0.2-1~ubuntu.22.04~jammy	5.1.0-1~ubuntu.22.04~jammy
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
gcc-12-base	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
git-man	2.34.1-1ubuntu1.15	2.34.1-1ubuntu1.17
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441	1.0.443
intel-microcode	3.20250812.0ubuntu0.22.04.1	3.20260210.0ubuntu0.22.04.1
isort	7.0.0	8.0.1
libasan8	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libatomic1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcc1-0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcurl3-gnutls	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22

Package Name	Previous Version	New Version
libcurl4	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libgcc-12-dev	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgcc-s1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgfortran5	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgomp1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libitm1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
liblsan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libnss3	3.98-0ubuntu0.22.04.2	3.98-0ubuntu0.22.04.3
libquadmath0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libstdc++6	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libtsan2	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libubsan1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1

Package Name	Previous Version	New Version
linux-headers-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-image-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-libc-dev	5.15.0-170.180	5.15.0-171.181
linux-modules-extra-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-tools-common	5.15.0-170.180	5.15.0-171.181
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
nltk	3.9.2	3.9.3
pipdeptree	2.30.0	2.31.0
platformdirs	4.9.2	4.9.4
pylint	4.0.4	4.0.5
redis	7.2.0	7.3.0
regex	2026.2.19	2026.2.28
sosreport	4.9.2-0ubuntu0~22.04.1	4.10.2-0ubuntu0~22.04.1
typer	0.24.0	0.24.1
virtualenv	20.38.0	21.1.0
wireless-regdb	2025.07.10-0ubuntu1~22.04.1	2025.10.07-0ubuntu1~22.04.1
yarl	1.22.0	1.23.0

Removed Packages

Package Name
linux-modules-extra-6.8.0-1046-aws
lustre-client-modules-6.8.0-1046-aws

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1046-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2

dcgm_version	4.5.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
awscli	1.44.40	1.44.43
boto3	1.42.50	1.42.53

Package Name	Previous Version	New Version
botocore	1.42.50	1.42.53
cloud-init	25.2-0ubuntu1~22.04.1	25.3-0ubuntu1~22.04.1
filelock	3.24.2	3.24.3
librt	0.8.0	0.8.1
libssh-4	0.9.6-2ubuntu0.22.04.5	0.9.6-2ubuntu0.22.04.6
platformdirs	4.9.2	4.4.0
regex	2026.1.15	2026.2.19
rich	14.3.2	14.3.3
virtualenv	20.37.0	20.38.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1044
linux-aws-6.8-tools-6.8.0-1044
linux-headers-6.8.0-1044-aws
linux-image-6.8.0-1044-aws
linux-modules-6.8.0-1044-aws
linux-tools-6.8.0-1044-aws

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3

ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.26	1.44.28
boto3	1.42.36	1.42.38
botocore	1.42.36	1.42.38
docker-buildx-plugin	0.30.1-1~ubuntu.22.04~jammy	0.31.1-1~ubuntu.22.04~jammy
inspectorssmplugin	1.0.434	1.0.436
linux-libc-dev	5.15.0-164.174	5.15.0-168.178
linux-tools-common	5.15.0-164.174	5.15.0-168.178
platformdirs	4.5.1	4.4.0
pytokens	0.4.0	0.4.1

Package Name	Previous Version	New Version
wcwidth	0.5.0	0.5.2

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1

dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
docker-compose-plugin	5.0.1-1~ubuntu.22.04~jammy	5.0.2-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
jaraco.text	3.12.1	4.0.0
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
libc-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-dev-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-devtools	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6-dev	2.35-0ubuntu3.11	2.35-0ubuntu3.12
locales	2.35-0ubuntu3.11	2.35-0ubuntu3.12
more-itertools	10.3.0	10.8.0
platformdirs	4.2.2	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
setuptools	80.9.0	80.10.1
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections

Package Name
typeguard

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260120

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
jaraco.functools	4.4.0	4.0.1
more-itertools	10.3.0	10.8.0
packaging	25.0	24.2
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6
pytokens	0.3.0	0.4.0
tomli	2.0.1	2.4.0
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260119

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme

ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.16	1.44.20
black	25.12.0	26.1.0
boto3	1.42.26	1.42.30
botocore	1.42.26	1.42.30
dask	2025.12.0	2026.1.1
dill	0.4.0	0.4.1
docker-ce-cli	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-ce-rootless-extras	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
httplib2	0.31.0	0.31.1
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.433	1.0.434
jaraco.context	5.3.0	6.1.0
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
librt	0.7.7	0.7.8
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvlsm	2025.06.10-1	2025.06.11-1
platformdirs	4.2.2	4.5.1
pyasn1	0.6.1	0.6.2
regex	2025.11.3	2026.1.15
tomli	2.4.0	2.0.1
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260106

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme

ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.13.2	3.13.3
astroid	4.0.2	4.0.3
awscli	1.44.9	1.44.12
boto3	1.42.19	1.42.22
botocore	1.42.19	1.42.22
celery	5.6.1	5.6.2
certifi	2025.11.12	2026.1.4
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.431	1.0.432
ipython	8.37.0	8.38.0
jaraco.context	5.3.0	6.0.2
jaraco.functools	4.4.0	4.0.1
marshmallow	4.1.2	4.2.0
packaging	25.0	24.2
pillow	12.0.0	12.1.0
platformdirs	4.5.1	4.2.2
ruamel.yaml	0.19.0	0.19.1
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
ruamel.yaml.clibz

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300

operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.6	1.44.8
boto3	1.42.16	1.42.18
botocore	1.42.16	1.42.18
celery	5.6.0	5.6.1
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430	1.0.431
jaraco.context	6.0.2	5.3.0
kombu	5.6.1	5.6.2
packaging	24.2	25.0
psutil	7.2.0	7.2.1
tomli	2.3.0	2.0.1
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251209

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1043-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.16.0.49
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme

ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.9	1.43.11
black	25.11.0	25.12.0
boto3	1.42.3	1.42.5
botocore	1.42.3	1.42.5
fastapi	0.123.9	0.124.0
inspectorssmplugin	1.0.419	1.0.423
jaraco.context	6.0.1	5.3.0
librt	0.6.3	0.7.3

Package Name	Previous Version	New Version
marshmallow	4.1.0	4.1.1
nvidia-ml-py	13.580.82	13.590.44
pipenv	2025.0.4	2025.1.1
platformdirs	4.5.0	4.5.1
pytest	9.0.1	9.0.2
tomli	2.3.0	2.0.1
urllib3	2.5.0	2.6.1
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251118

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200, P6-B300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1042-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.95.05

default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_gds_version	1.15.0.42
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.42.75	1.42.76
boto3	1.40.75	1.40.76
botocore	1.40.75	1.40.76
ibacm	59.amzn0-1	60.0-1
ibverbs-providers	59.amzn0-1	60.0-1
ibverbs-utils	59.amzn0-1	60.0-1
infiniband-diags	59.amzn0-1	60.0-1
inspectorssmplugin	1.0.413	1.0.418
jaraco.functools	4.0.1	4.3.0
libfabric-aws-bin	2.3.1amzn1.0	2.3.1amzn2.0
libfabric-aws-dev	2.3.1amzn1.0	2.3.1amzn2.0
libfabric1-aws	2.3.1amzn1.0	2.3.1amzn2.0
libibmad-dev	59.amzn0-1	60.0-1
libibmad5	59.amzn0-1	60.0-1
libibnetdisc-dev	59.amzn0-1	60.0-1
libibnetdisc5	59.amzn0-1	60.0-1
libibumad-dev	59.amzn0-1	60.0-1
libibumad3	59.amzn0-1	60.0-1
libibverbs-dev	59.amzn0-1	60.0-1

Package Name	Previous Version	New Version
libibverbs1	59.amzn0-1	60.0-1
libnccl-ofi	1.17.1-1	1.17.2-1
librdmacm-dev	59.amzn0-1	60.0-1
librdmacm1	59.amzn0-1	60.0-1
platformdirs	4.5.0	4.2.2
rdmacm-utils	59.amzn0-1	60.0-1
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251104

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_gds_version	1.15.0.42

Package Name	Version
nvidia_driver	580.95.05
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.13.1	3.13.2
amazon-cloudwatch-agent	1.300060.0b1248-1	1.300061.0b1289-1
annotated-doc	0.0.2	0.0.3
awscli	1.42.58	1.42.65
binutils-common	2.38-4ubuntu2.8	2.38-4ubuntu2.10
binutils-x86-64-linux-gnu	2.38-4ubuntu2.8	2.38-4ubuntu2.10
boto3	1.40.58	1.40.65
botocore	1.40.58	1.40.65
cloudpickle	3.1.1	3.1.2
docker-compose-plugin	2.40.2-1~ubuntu.22.04~jammy	2.40.3-1~ubuntu.22.04~jammy
fastapi	0.120.0	0.121.0
fsspec	2025.9.0	2025.10.0
inspectorssmplugin	1.0.401	1.0.405
jaraco.context	6.0.1	5.3.0
libbinutils	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf-nobfd0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf0	2.38-4ubuntu2.8	2.38-4ubuntu2.10

Package Name	Previous Version	New Version
libssh-4	0.9.6-2ubuntu0.22.04.4	0.9.6-2ubuntu0.22.04.5
libxml2	2.9.13+dfsg-1ubuntu0.9	2.9.13+dfsg-1ubuntu0.10
linux-libc-dev	5.15.0-160.170	5.15.0-161.171
linux-tools-common	5.15.0-160.170	5.15.0-161.171
marshmallow	4.0.1	4.1.0
nh3	0.3.1	0.3.2
packaging	25.0	24.2
pbr	7.0.1	7.0.3
pip	25.2	25.3
platformdirs	4.5.0	4.2.2
psutil	7.1.1	7.1.3
redis	7.0.0	7.0.1
regex	2025.10.23	2025.11.3
starlette	0.48.0	0.49.3
typing_extensions	4.12.2	4.15.0
virtualenv	20.35.3	20.35.4

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_gds_version	1.15.0.42
nvidia_driver	580.95.05
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.4,/usr/local/cuda-12.5,/usr/local/cuda-12.6,/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1

Package Name	Version
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

datacenter-gpu-manager-4-cuda13-4.4.1-1
datacenter-gpu-manager-4-proprietary-cuda13-4.4.1-1
libnvidia-nscq-580.95.05-1
libnvsdm-580.95.05-1
linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1

linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-extra-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21
nvidia-fabricmanager-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
PyYAML	6.0.2	6.0.3
aiohttp	3.12.15	3.13.0
anyio	4.10.0	4.11.0
attrs	25.3.0	25.4.0
awscli	1.42.36	1.42.46

Package Name	Previous Version	New Version
boto3	1.40.36	1.40.46
botocore	1.40.36	1.40.46
certifi	2025.8.3	2025.10.5
cloud-init	25.1.4-0ubuntu0~22.04.1	25.2-0ubuntu1~22.04.1
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
fastapi	0.117.1	0.118.0
frozenlist	1.7.0	1.8.0
importlib_metadata	8.7.0	8.0.0
inspectorssmplugin	1.0.396	1.0.399
isort	6.0.1	6.1.0

Package Name	Previous Version	New Version
jaraco.context	5.3.0	6.0.1
jaraco.functools	4.0.1	4.3.0
libcurl3-gnutls	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libcurl4	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
libnccl-ofi	1.16.2-1	1.16.3-1
libssl-dev	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libssl3	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libtiff5	4.3.0-6ubuntu0.11	4.3.0-6ubuntu0.12
libxnvctrl0	580.82.07-0ubuntu1	580.95.05-0ubuntu1
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-157.167
linux-modules-extra-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1
linux-tools-common	5.15.0-153.163	5.15.0-157.167
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1

Package Name	Previous Version	New Version
more-itertools	10.8.0	10.3.0
multidict	6.6.4	6.7.0
needrestart	3.5-5ubuntu2.4	3.5-5ubuntu2.5
nh3	0.3.0	0.3.1
nltk	3.9.1	3.9.2
nvlsm	2025.06.5-1	2025.06.6-1
open-vm-tools	12.3.5-3~ubuntu0.22.04.2	12.3.5-3~ubuntu0.22.04.3
packaging	24.2	25.0
pip-tools	7.5.0	7.5.1
propcache	0.3.2	0.4.0
pydantic	2.9.2	2.11.10
pydantic_core	2.23.4	2.33.2
pylint	3.3.8	3.3.9
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
safety-schemas	0.0.14	0.0.16
typer	0.19.1	0.19.2
typing-inspection	0.4.1	0.4.2
yarl	1.20.1	1.22.0
zope.interface	8.0	8.0.1

Removed Packages

Package Name
datacenter-gpu-manager-4-cuda12
datacenter-gpu-manager-4-proprietary-cuda12
libmnl-dev
libnvidia-nscq-570
libnvsdm-570
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1036-aws
linux-image-6.8.0-1036-aws
linux-modules-6.8.0-1036-aws
linux-modules-extra-6.8.0-1036-aws
linux-tools-6.8.0-1036-aws
lustre-client-modules-6.8.0-1036-aws
nvidia-fabricmanager-570

Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250923

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1036-aws
python_location	/usr/bin/python3.10
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.4,/usr/local/cuda-12.5,/usr/local/cuda-12.6,/usr/local/cuda-12.8
nvidia_gds_version	1.15.0.42
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.42.34	1.42.36
billiard	4.2.1	4.2.2
boto3	1.40.34	1.40.36
botocore	1.40.34	1.40.36
fastapi	0.116.2	0.117.1
importlib_metadata	8.7.0	8.0.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11

Package Name	Previous Version	New Version
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11
more-itertools	10.8.0	10.3.0
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
typer	0.17.4	0.19.1
wcwidth	0.2.13	0.2.14

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-09-19

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250919

Updated

- In CUDA12.8, updated compiled NCCL Version from version 2.26.5 to 2.27.7

Release Date: 2025-08-08

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250808

Added

- Added support for P5.4xlarge instances

Updated

- Upgraded EFA to 1.43.1

Release Date: 2025-07-22

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250722

Updated

- Upgraded Nvidia Driver from 570.158.01 to 570.172.08 to fix CVE's present in the Nvidia Security Bulletin for July

Release Date: 2025-05-16

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250516

Added

- Added support for **P6-B200 EC2 instances**

Updated

- Upgraded EFA Installer from version 1.39.0 to 1.40.0
- Upgrade AWS OFI NCCL Plugin from version 1.13.0-aws to 1.14.2-aws
- Updated compiled NCCL Version from version 2.22.3 to 2.26.5
- Updated default CUDA version from version 12.6 to 12.8
- Updated Nvidia DCGM version from 3.3.9 to 4.4.3

Release Date: 2025-05-05

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250503

Updated

- Upgraded GDRCopy from 2.4.1 to 2.5.1

Release Date: 2025-04-24

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250424

Updated

- Upgraded Nvidia driver from version 570.124.06 to 570.133.20 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for April 2025

Release Date: 2025-02-17

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250214

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-02-07

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250205

Added

- Added CUDA toolkit version 12.6 in directory /usr/local/cuda-12.6

Removed

- CUDA versions 12.1 and 12.2 has been removed from this DLAMI. Customers can install these versions from NVIDIA using the link below
  - https://developer.nvidia.com/cuda-toolkit-archive

Release Date: 2025-01-31

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250131

Updated

- Upgraded EFA version from 1.37.0 to 1.38.0
  - EFA now bundles the AWS OFI NCCL plugin, which can now be found in /opt/amazon/ofi-nccl rather than the original /opt/aws-ofi-nccl/. If updating your LD_LIBRARY_PATH variable, please ensure that you modify your OFI NCCL location properly.
- Upgraded Nvidia Container Toolkit from 1.17.3 to 1.17.4

Release Date: 2025-01-17

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250117

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2024-11-18

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20241115

Added

- Amazon FSx package for Lustre support added.

Fixed

- Due to a change in the Ubuntu kernel to address a defects in the Kernel Address Space Layout Randomization (KASLR) functionality , G4Dn/G5 instances are unable to properly initialize

CUDA on the OSS Nvidia driver. In order to mitigate this issue, this DLAMI includes functionality that dynamically loads the proprietary driver for G4Dn and G5 instances. Please allow a brief initialization period for this loading in order to ensure that your instances are able to work properly.

To check the status and health of this service, you can use the following command:

```
sudo systemctl is-active dynamic_driver_load.service
active
```

Release Date: 2024-10-23

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20241023

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVEs present in the NVIDIA GPU Display Security Bulletin for October 2024

Release Date: 2024-10-01

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240930

Updated

- Upgraded Nvidia driver and Fabric Manager from version 535.183.01 to 550.90.07
- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2, addressing the security vulnerability CVE-2024-0133.
- Upgraded EFA Version from 1.32.0 to 1.34.0
- Upgraded NCCL to latest version 2.22.3 for all CUDA versions
  - CUDA 12.1, 12.2 upgraded from 2.18.5+CUDA12.2
  - CUDA 12.3 upgraded from version 2.21.5+CUDA12.4

Added

- Added CUDA toolkit version 12.4 in directory /usr/local/cuda-12.4
- Added support for **P5e EC2 instances**.

Release Date: 2024-08-19

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20240816

Added

- Added support for G6e EC2 instance.

Release Date: 2024-06-06

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20240606

Updated

- Updated Nvidia driver version to 535.183.01 from 535.161.08

Release Date: 2024-05-15

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20240513

Removed

- Amazon FSx for Lustre support has been removed in this release due to incompatibility with the latest Ubuntu 22.04 kernel versions. Support for FSx for Lustre will be reinstated once the latest kernel version is supported. Customers who require FSx for Lustre should continue to use the Deep Learning Base GPU AMI (Ubuntu 20.04).

Release Date: 2024-04-29

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20240429

Added

- Initial release of the Deep Learning Base OSS DLAMI for Ubuntu 22.04

AWS Deep Learning Base AMI (Amazon Linux 2)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version ${XX.X}
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version ${XX.X}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

OSS Nvidia Driver:

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/x86_64/base-oss-nvidia-driver-amazon-linux-2/
latest/ami-id \
    --query "Parameter.Value" \
    --output text
```

Proprietary Nvidia Driver:

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/x86_64/base-proprietary-nvidia-driver-amazon-
linux-2/latest/ami-id \
    --query "Parameter.Value" \
    --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

OSS Nvidia Driver:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2)
 Version ??.?' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Proprietary Nvidia Driver:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux
 2) Version ??.?' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 75.2
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 75.1
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 75.0
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 74.8
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 74.7
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 74.2
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 74.1
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.8
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.6
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.5
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.4
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.2
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.0
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 72.6
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 71.9
- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 71.6

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 75.2

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.251-248.983.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3883.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
anyio	4.12.1	4.13.0
boto3	1.42.74	1.42.77
botocore	1.42.74	1.42.77
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
inspectorssmplugin	1.0.458-1	1.0.459-1
marshmallow	4.2.2	4.2.3
narwhals	2.18.0	2.18.1
nh3	0.3.3	0.3.4
nltk	3.9.3	3.9.4

Package Name	Previous Version	New Version
pipenv	2026.2.1	2026.2.2
platformdirs	4.4.0	4.9.4
python-discovery	1.2.0	1.2.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0
tomli	2.4.0	2.4.1

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 75.1

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.251-248.983.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/

nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3883.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
boto3	1.42.72	1.42.74

Package Name	Previous Version	New Version
botocore	1.42.72	1.42.74
fastapi	0.135.1	0.135.2
importlib_metadata	9.0.0	8.7.1
inspectorssmplugin	1.0.456-1	1.0.458-1
jaraco.context	6.1.1	6.1.2
jsonpointer	3.0.0	3.1.1
pipdeptree	2.32.0	2.34.0
starlette	0.52.1	1.0.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 75.0

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.251-248.983.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10

nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3883.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.11.0	2.12.1
amazon-ssm-agent	3.3.3598.0-1.amzn2	3.3.3883.0-1.amzn2
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
black	26.3.0	26.3.1
bokeh	3.8.2	3.9.0
boto3	1.42.64	1.42.72
botocore	1.42.64	1.42.72
charset-normalizer	3.4.5	3.4.6
dask	2026.1.2	2026.3.0
filelock	3.25.1	3.25.2
fonttools	4.62.0	4.62.1
gpg-pubkey	d42d0685-62589a51	c87f5b1a-593863f8
inspectorssmplugin	1.0.443-1	1.0.456-1
jaraco.context	6.1.0	6.1.1
jupyterlab	4.5.5	4.5.6
lcms2	2.6-3.amzn2.0.2	2.6-3.amzn2.0.3
libtiff	4.0.3-35.amzn2.0.28	4.0.3-35.amzn2.0.29
narwhals	2.17.0	2.18.0

Package Name	Previous Version	New Version
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.0.3	2026.2.1
platformdirs	4.9.4	4.4.0
pyOpenSSL	25.3.0	26.0.0
pyasn1	0.6.2	0.6.3
python-discovery	1.1.2	1.2.0
tornado	6.5.4	6.5.5

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 74.8

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.251-248.983.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10

nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-5.10.251-248.983-1.0-0.amzn2
python-discovery-1.1.0

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
boto3	1.42.55	1.42.62
botocore	1.42.55	1.42.62
certifi	2026.1.4	2026.2.25
ec2-hibinit-agent	1.0.10-1.amzn2	1.0.10-2.amzn2
fastapi	0.132.0	0.135.1
filelock	3.24.3	3.25.0
isort	8.0.0	8.0.1
kernel-devel	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
kernel-headers	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
kernel-tools	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
libpng	1.5.13-8.amzn2.0.6	1.5.13-8.amzn2.0.7
libxml2	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
libxml2-devel	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
libxml2-python	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
nltk	3.9.2	3.9.3

Package Name	Previous Version	New Version
platformdirs	4.9.2	4.4.0
plotly	6.5.2	6.6.0
python	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-devel	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-libs	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-pillow	2.0.0-23.gitd1c6db8.amzn2.0.16	2.0.0-23.gitd1c6db8.amzn2.0.17
python3	3.7.16-1.amzn2.0.22	3.7.16-1.amzn2.0.23
python3-libs	3.7.16-1.amzn2.0.22	3.7.16-1.amzn2.0.23
pytz	2025.2	2026.1.post1
redis	7.2.0	7.2.1
regex	2026.2.19	2026.2.28
virtualenv	20.39.0	21.1.0
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 74.7

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en

operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.248-247.988.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.1.0	2.2.0
boto3	1.42.53	1.42.55
botocore	1.42.53	1.42.55
fastapi	0.129.0	0.132.0
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441-1	1.0.443-1
isort	7.0.0	8.0.0
jupyterlab	4.5.4	4.5.5
narwhals	2.16.0	2.17.0
platformdirs	4.9.2	4.4.0
pylint	4.0.4	4.0.5
typer	0.24.0	0.24.1
virtualenv	20.38.0	20.39.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 74.2

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.992.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.247-246.992-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.40	1.42.43
botocore	1.42.40	1.42.43
containerd	2.1.5-1.amzn2.0.4	2.1.5-1.amzn2.0.5
fastapi	0.128.0	0.128.2
fsspec	2026.1.0	2026.2.0
id	1.5.0	1.6.1
java-11-amazon-corretto-headless	11.0.29+7-1.amzn2	11.0.30+7-1.amzn2
kernel-devel	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2

Package Name	Previous Version	New Version
kernel-headers	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-tools	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
libsoup	2.56.0-6.amzn2.0.5	2.56.0-6.amzn2.0.7
libtasn1	4.10-1.amzn2.0.7	4.10-1.amzn2.0.8
libxml2	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
libxml2-devel	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
libxml2-python	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
marshmallow	4.2.1	4.2.2
opencv-python	4.13.0.90	4.13.0.92
pip	26.0	26.0.1
python-urllib3	1.25.9-1.amzn2.0.8	1.25.9-1.amzn2.0.9
python2-pyasn1	0.1.9-7.amzn2.0.2	0.1.9-7.amzn2.0.3
python3-pip	20.2.2-1.amzn2.0.14	20.2.2-1.amzn2.0.15
runc	1.3.4-1.amzn2	1.3.4-2.amzn2
tenacity	9.1.2	9.1.3
tqdm	4.67.2	4.67.3

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 74.1

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.989.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.40
botocore	1.42.38	1.42.40
dask	2026.1.1	2026.1.2
inspectorssmplugin	1.0.436-1	1.0.438-1
narwhals	2.15.0	2.16.0
pip	25.3	26.0
platformdirs	4.5.1	4.4.0
rich	14.3.1	14.3.2
tqdm	4.67.1	4.67.2

Package Name	Previous Version	New Version
wcwidth	0.5.2	0.5.3

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.8

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.989.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0

ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
async-lru	2.0.5	2.1.0
black	25.12.0	26.1.0
boto3	1.42.24	1.42.30
botocore	1.42.24	1.42.30
dask	2025.12.0	2026.1.1
dill	0.4.0	0.4.1

Package Name	Previous Version	New Version
filelock	3.20.2	3.20.3
fsspec	2025.12.0	2026.1.0
gpg-pubkey	c87f5b1a-593863f8	d42d0685-62589a51
importlib_metadata	8.0.0	8.7.1
inspectorssmplugin	1.0.432-1	1.0.434-1
jaraco.context	6.0.2	6.1.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
kernel	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
libblkid	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.13
libfdisk	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.13
libmount	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.13
librt	0.7.7	0.7.8
libsmartcols	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.13
libuuid	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.13
more-itertools	10.8.0	10.3.0
nvidia-fabric-manager	570.195.03-1	570.211.01-1
opencv-python	4.12.0.88	4.13.0.90

Package Name	Previous Version	New Version
packaging	24.2	25.0
pathspec	1.0.2	1.0.3
platformdirs	4.2.2	4.5.1
plotly	6.5.1	6.5.2
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
pytokens	0.3.0	0.4.0
regex	2025.11.3	2026.1.15
soupsieve	2.8.1	2.8.2
tomlkit	0.13.3	0.14.0
util-linux	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.13
virtualenv	20.36.0	20.36.1
zipp	3.23.0	3.19.2
zope.interface	8.1.1	8.2

Removed Packages

Package Name
grub2-tools-efi
grub2-tools-extra
kernel-livepatch-5.10.245-245.983

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.6

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.989.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

grub2-tools-efi-2.06-14.amzn2.0.7
grub2-tools-extra-2.06-14.amzn2.0.7
kernel-livepatch-5.10.247-246.989-1.0-0.amzn2

Updated Packages

Package Name	Previous Version	New Version
Cython	3.2.3	3.2.4
aiohttp	3.13.2	3.13.3
amazon-cloudwatch-agent	1.300060.1-1.amzn2	1.300062.1-1.amzn2
amazon-ssm-agent	3.3.3050.0-1.amzn2	3.3.3572.0-1.amzn2
astroid	4.0.2	4.0.3
aws-cfn-bootstrap	2.0-36.amzn2	2.0-38.amzn2
bokeh	3.8.1	3.8.2
boto3	1.42.19	1.42.22

Package Name	Previous Version	New Version
botocore	1.42.19	1.42.22
celery	5.6.1	5.6.2
certifi	2025.11.12	2026.1.4
containerd	2.1.5-1.amzn2.0.1	2.1.5-1.amzn2.0.3
cpp	7.3.1-17.amzn2	7.3.1-18.amzn2
docker	25.0.13-1.amzn2.0.2	25.0.14-1.amzn2.0.1
filelock	3.20.1	3.20.2
gcc	7.3.1-17.amzn2	7.3.1-18.amzn2
gcc-c++	7.3.1-17.amzn2	7.3.1-18.amzn2
gcc-gfortran	7.3.1-17.amzn2	7.3.1-18.amzn2
glib2	2.56.1-9.amzn2.0.12	2.56.1-9.amzn2.0.13
grub2	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-common	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-efi-x64-ec2	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-pc	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-pc-modules	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-tools	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-tools-minimal	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
importlib_metadata	8.0.0	8.7.1
inspectorssmplugin	1.0.431-1	1.0.432-1

Package Name	Previous Version	New Version
ipython	8.37.0	8.38.0
jaraco.functools	4.4.0	4.0.1
kernel-devel	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
kernel-headers	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
kernel-tools	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
libatomic	7.3.1-17.amzn2	7.3.1-18.amzn2
libblkid	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libcilkrts	7.3.1-17.amzn2	7.3.1-18.amzn2
libfdisk	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libgcc	7.3.1-17.amzn2	7.3.1-18.amzn2
libgfortran	7.3.1-17.amzn2	7.3.1-18.amzn2
libgomp	7.3.1-17.amzn2	7.3.1-18.amzn2
libitm	7.3.1-17.amzn2	7.3.1-18.amzn2
libmount	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libmpx	7.3.1-17.amzn2	7.3.1-18.amzn2
libpng	1.5.13-8.amzn2.0.5	1.5.13-8.amzn2.0.6
libquadmath	7.3.1-17.amzn2	7.3.1-18.amzn2
librt	0.7.6	0.7.7

Package Name	Previous Version	New Version
libsanitizer	7.3.1-17.amzn2	7.3.1-18.amzn2
libsmartcols	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libstdc++	7.3.1-17.amzn2	7.3.1-18.amzn2
libuuid	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
marshmallow	4.1.2	4.2.0
packaging	25.0	24.2
pillow	12.0.0	12.1.0
platformdirs	4.2.2	4.5.1
python-urllib3	1.25.9-1.amzn2.0.5	1.25.9-1.amzn2.0.7
python3	3.7.16-1.amzn2.0.21	3.7.16-1.amzn2.0.22
python3-libs	3.7.16-1.amzn2.0.21	3.7.16-1.amzn2.0.22
ruamel.yaml	0.19.0	0.19.1
runc	1.3.3-2.amzn2	1.3.4-1.amzn2
systemtap	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-client	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-devel	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-runtime	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
util-linux	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
webkitgtk4	2.48.7-1.amzn2	2.50.4-1.amzn2
webkitgtk4-jsc	2.48.7-1.amzn2	2.50.4-1.amzn2

Package Name	Previous Version	New Version
zipp	3.19.2	3.23.0

Removed Packages

Package Name
ruamel.yaml.clibz

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.5

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-245.983.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1

nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.4
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.16	1.42.19
botocore	1.42.16	1.42.19
celery	5.6.0	5.6.1

Package Name	Previous Version	New Version
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430-1	1.0.431-1
jaraco.context	6.0.2	5.3.0
json5	0.12.1	0.13.0
kombu	5.6.1	5.6.2
librt	0.7.5	0.7.6
more-itertools	10.8.0	10.3.0
packaging	24.2	25.0
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.0
tomli	2.0.1	2.3.0
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.4

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-245.983.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.15	1.42.16
botocore	1.42.15	1.42.16
importlib_metadata	8.7.1	8.0.0
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.0.1	4.4.0
librt	0.7.4	0.7.5
mistune	3.1.4	3.2.0
nbclient	0.10.3	0.10.4
packaging	25.0	24.2
psutil	7.1.3	7.2.0
typer	0.20.1	0.21.0

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.2

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, G7e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-245.983.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.1

efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.245-245.983-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
acpid	2.0.19-9.amzn2.0.1	2.0.19-9.amzn2.0.2
amd-ucode-firmware	20200421-84.git78c0348.amzn2	20200421-85.git78c0348.amzn2
bind-export-libs	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
bind-libs	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13

Package Name	Previous Version	New Version
bind-libs-lite	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
bind-license	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
bind-utils	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
black	25.11.0	25.12.0
boost-date-time	1.53.0-27.amzn2.0.6	1.53.0-27.amzn2.0.7
boost-system	1.53.0-27.amzn2.0.6	1.53.0-27.amzn2.0.7
boost-thread	1.53.0-27.amzn2.0.6	1.53.0-27.amzn2.0.7
boto3	1.42.3	1.42.5
botocore	1.42.3	1.42.5
containerd	2.1.4-1.amzn2.0.2	2.1.5-1.amzn2.0.1
curl	8.3.0-1.amzn2.0.10	8.3.0-1.amzn2.0.11
ec2-hibinit-agent	1.0.8-0.amzn2	1.0.10-0.amzn2
fastapi	0.123.9	0.124.0
glib2	2.56.1-9.amzn2.0.11	2.56.1-9.amzn2.0.12
importlib_metadata	8.7.0	8.0.0
inspectorssmplugin	1.0.419-1	1.0.423-1
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.3.0	4.0.1

Package Name	Previous Version	New Version
kernel	5.10.245-243.979.amzn2	5.10.245-245.983.amzn2
kernel-devel	5.10.245-243.979.amzn2	5.10.245-245.983.amzn2
kernel-headers	5.10.245-243.979.amzn2	5.10.245-245.983.amzn2
kernel-tools	5.10.245-243.979.amzn2	5.10.245-245.983.amzn2
libcurl	8.3.0-1.amzn2.0.10	8.3.0-1.amzn2.0.11
libcurl-devel	8.3.0-1.amzn2.0.10	8.3.0-1.amzn2.0.11
librt	0.6.3	0.7.3
marshmallow	4.1.0	4.1.1
more-itertools	10.8.0	10.3.0
nvidia-ml-py	13.580.82	13.590.44
pipenv	2025.0.4	2025.1.1
platformdirs	4.5.0	4.5.1
pytest	9.0.1	9.0.2
python3	3.7.16-1.amzn2.0.20	3.7.16-1.amzn2.0.21
python3-libs	3.7.16-1.amzn2.0.20	3.7.16-1.amzn2.0.21
tomli	2.0.1	2.3.0
urllib3	2.5.0	2.6.1
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-5.10.245-243.979

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 73.0

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-241.978.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.45.0
ofi_nccl_version	1.17.2

ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.40.75	1.41.1
botocore	1.40.75	1.41.1
fastapi	0.121.2	0.121.3
ibacm	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
infiniband-diags	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
inspectorssmplugin	1.0.413-1	1.0.418-1
jaraco.functools	4.3.0	4.0.1
jupyterlab	4.4.10	4.5.0

Package Name	Previous Version	New Version
libfabric-aws	2.3.1amzn1.0-1.amzn2	2.3.1amzn2.0-1.amzn2
libfabric-aws-devel	2.3.1amzn1.0-1.amzn2	2.3.1amzn2.0-1.amzn2
libibumad	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
libibverbs	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
libibverbs-core	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
libibverbs-utils	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
libnccl-ofi	1.17.1-1.amzn2	1.17.2-1.amzn2
librdmacm	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
librdmacm-utils	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
packaging	24.2	25.0
rdma-core	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
rdma-core-devel	59.amzn0-1.amzn2.0.2	60.0-1.amzn2.0.2
redis	7.0.1	7.1.0
s3transfer	0.14.0	0.15.0
starlette	0.49.3	0.50.0
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 72.6

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	70
gdr_copy	2.4.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	570.195.03
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
ssm_agent_version	3.3.3050.0
kernel_version	5.10.245-241.976.amzn2.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2
default_cuda	/usr/local/cuda-12.1/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Cython	3.1.6	3.2.0
bind-export-libs	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-libs	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-libs-lite	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-license	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-utils	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
boto3	1.40.65	1.40.68
botocore	1.40.65	1.40.68

Package Name	Previous Version	New Version
dask	2025.10.0	2025.11.0
inspectorssmplugin	1.0.408-1	1.0.410-1
pydantic	2.12.3	2.12.4
pydantic_core	2.41.4	2.41.5
pytokens	0.2.0	0.3.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 71.9

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	70
gdr_copy	2.4.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
efa_version	1.43.3

Package Name	Version
ebs_volume_type	gp3
nvidia_driver	570.195.03
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
ssm_agent_version	3.3.3050.0
kernel_version	5.10.244-240.965.amzn2.x86_64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2
default_cuda	/usr/local/cuda-12.1/
compute_architecture	x86_64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.40.46	1.40.49
botocore	1.40.46	1.40.49
fastapi	0.118.0	0.118.2
filelock	3.19.1	3.20.0
importlib_metadata	8.7.0	8.0.0
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.3.0	4.0.1
matplotlib	3.10.6	3.10.7
packaging	25.0	24.2
platformdirs	4.4.0	4.5.0
propcache	0.4.0	0.4.1
rich	14.1.0	14.2.0
tomli	2.2.1	2.3.0
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
virtualenv	20.34.0	20.35.1
websocket-client	1.8.0	1.9.0

Removed Packages

No packages were removed in this release.

Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 71.6

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.244-240.965.amzn2.x86_64
framework_version	70
python_location	/usr/bin/python3.10
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.244-240.965-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
MarkupSafe	3.0.2	3.0.3
amazon-ssm-agent	3.3.2299.0-1.amzn2	3.3.3050.0-1.amzn2
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.39	1.40.41
botocore	1.40.39	1.40.41
cups-libs	1.6.3-51.amzn2.0.5	1.6.3-51.amzn2.0.6
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
inspectorssmplugin	1.0.396-1	1.0.398-1
jupyterlab	4.4.8	4.4.9

Package Name	Previous Version	New Version
kernel-devel	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-headers	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-livepatch-5.10.242-239.961	1.0-0.amzn2	1.0-2.amzn2
kernel-tools	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
libsoup	2.56.0-6.amzn2.0.4	2.56.0-6.amzn2.0.5
libtiff	4.0.3-35.amzn2.0.24	4.0.3-35.amzn2.0.25
lustre-client	2.12.8-13.amzn2	2.12.8-14.amzn2
microcode_ctl	2.1-47.amzn2.4.25	2.1-47.amzn2.4.26
narwhals	2.5.0	2.6.0
numba	0.62.0	0.62.1
openjpeg2	2.4.0-5.amzn2.0.1	2.4.0-5.amzn2.0.2
packaging	24.2	25.0
pandas	2.3.2	2.3.3
platformdirs	4.2.2	4.4.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-08-08

AMI name (OSS): Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 70.7

AMI name (Proprietary): Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 68.9

Added

- Added support for P5.4xlarge instances

Updated

- Upgraded EFA to 1.43.1

Release Date: 2025-07-22

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 70.3
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 68.4

Updated

- Upgraded Nvidia Driver from 570.158.01 to 570.172.08 to fix CVE's present in the Nvidia Security Bulletin for July

Release Date: 2025-04-22

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 69.3

- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 67.0

Updated

- Upgraded Nvidia driver from version 550.144.03 to 550.163.01 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for April 2025

Release Date: 2025-02-17

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 68.5
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 66.3

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4. Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-02-04

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 68.4
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 66.1

Updated

- Upgraded EFA version from 1.37.0 to 1.38.0

Release Date: 2025-01-17

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 68.3
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 66.0

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2025-01-06

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 68.2
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 65.9

Updated

- Upgraded EFA from version 1.34.0 to 1.37.0
- Upgraded AWS OFI NCCL from version 1.11.0 to 1.13.0

Release Date: 2024-12-09

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 68.1
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 65.8

Updated

- Upgraded Nvidia Container Toolkit from version 1.17.0 to 1.17.3

Release Date: 2024-11-09

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 67.9
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 65.6

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.2 to 1.17.0, addressing the security vulnerability CVE-2024-0134.

Release Date: 2024-10-22

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 67.7
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 65.4

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVEs present in the NVIDIA GPU Display Security Bulletin for October 2024

Release Date: 2024-10-03

AMI names

- Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version
- Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 65.2

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2, addressing the security vulnerability CVE-2024-0133.

Release Date: 2024-08-27

AMI name: Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 67.0

Updated

- Upgraded Nvidia driver and Fabric Manager from version 535.183.01 to 550.90.07
  - Removed multi-user shell requirement from Fabric Manager based on Nvidia recommendations
  - Please reference known issues for Tesla driver 550.90.07 here for more information
- Upgraded EFA Version from 1.32.0 to 1.34.0
- Upgraded NCCL to latest version 2.22.3 for all CUDA versions
  - CUDA 12.1, 12.2 upgraded from 2.18.5+CUDA12.2
  - CUDA 12.3 upgraded from 2.21.5+CUDA12.4

Added

- Added CUDA toolkit version 12.4 in directory /usr/local/cuda-12.4
- Added support for P5e EC2 instances.

Removed

- Removed CUDA Toolkit version 11.8 stack present in directory /usr/local/cuda-11.8

Release Date: 2024-08-19

AMI name: Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) Version 66.3

Added

- Added support for G6e EC2 instances.

AWS Deep Learning Base Qualcomm AMI (Amazon Linux 2)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning Base Qualcomm AMI (Amazon Linux 2) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-qualcomm-amazon-linux-2/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Base Qualcomm AMI (Amazon Linux 2) ????????'
 'Name=state,Values=available' --query 'reverse(sort_by(Images, &CreationDate))
[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260306
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260227
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260220
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260206
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260130
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260121
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260102
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251226
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251205
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251121

- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251107
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251003
- Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20250926

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.251-248.983.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
boto3	1.42.58	1.42.62
botocore	1.42.58	1.42.62
charset-normalizer	3.4.4	3.4.5
ec2-hibinit-agent	1.0.10-1.amzn2	1.0.10-2.amzn2
filelock	3.24.3	3.25.0
isort	8.0.0	8.0.1
kernel	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
kernel-devel	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
kernel-headers	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
kernel-tools	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
libpng	1.5.13-8.amzn2.0.6	1.5.13-8.amzn2.0.7
libxml2	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
libxml2-devel	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
libxml2-python	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
python	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-devel	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16

Package Name	Previous Version	New Version
python-libs	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-pillow	2.0.0-23.gitd1c6db8.amzn2.0.16	2.0.0-23.gitd1c6db8.amzn2.0.17
python3	3.7.16-1.amzn2.0.22	3.7.16-1.amzn2.0.23
python3-libs	3.7.16-1.amzn2.0.22	3.7.16-1.amzn2.0.23
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28

Removed Packages

No packages were removed in this release.

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.248-247.988.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.53	1.42.58
botocore	1.42.53	1.42.58
certifi	2026.1.4	2026.2.25
inspectorssmplugin	1.0.441-1	1.0.443-1
nltk	3.9.2	3.9.3
platformdirs	4.4.0	4.9.2
typer	0.24.0	0.24.1

Removed Packages

No packages were removed in this release.

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.248-247.988.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

psutil-7.2.2

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8

Package Name	Previous Version	New Version
amazon-ssm-agent	3.3.3572.0-1.amzn2	3.3.3598.0-1.amzn2
boto3	1.42.48	1.42.53
botocore	1.42.48	1.42.53
curl	8.3.0-1.amzn2.0.11	8.3.0-1.amzn2.0.12
docker	25.0.14-1.amzn2.0.1	25.0.14-1.amzn2.0.2
expat	2.1.0-15.amzn2.0.5	2.1.0-15.amzn2.0.6
filelock	3.21.2	3.24.3
inspectorssmplugin	1.0.440-1	1.0.441-1
isort	7.0.0	8.0.0
kernel	5.10.247-246.992.amzn2	5.10.248-247.988.amzn2
kernel-devel	5.10.247-246.992.amzn2	5.10.248-247.988.amzn2
kernel-headers	5.10.247-246.992.amzn2	5.10.248-247.988.amzn2
kernel-tools	5.10.247-246.992.amzn2	5.10.248-247.988.amzn2
libcurl	8.3.0-1.amzn2.0.11	8.3.0-1.amzn2.0.12
libcurl-devel	8.3.0-1.amzn2.0.11	8.3.0-1.amzn2.0.12
openssh	7.4p1-22.amzn2.0.10	7.4p1-22.amzn2.0.11
openssh-clients	7.4p1-22.amzn2.0.10	7.4p1-22.amzn2.0.11
openssh-server	7.4p1-22.amzn2.0.10	7.4p1-22.amzn2.0.11

Package Name	Previous Version	New Version
openssl	1.0.2k-24.amzn2.0.16	1.0.2k-24.amzn2.0.17
openssl-libs	1.0.2k-24.amzn2.0.16	1.0.2k-24.amzn2.0.17
openssl11-devel	1.1.1zd-1.amzn2.0.1	1.1.1zf-1.amzn2.0.1
openssl11-libs	1.1.1zd-1.amzn2.0.1	1.1.1zf-1.amzn2.0.1
platformdirs	4.7.0	4.9.2
pydantic	2.12.5	2.9.2
pydantic_core	2.41.5	2.23.4
pylint	4.0.4	4.0.5
regex	2026.1.15	2026.2.19
rich	14.3.2	14.3.3
safety-schemas	0.0.16	0.0.14
setuptools	82.0.0	81.0.0
typer	0.23.1	0.24.0

Removed Packages

Package Name
typing-inspection

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.992.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.38	1.42.43
botocore	1.42.38	1.42.43

Package Name	Previous Version	New Version
containerd	2.1.5-1.amzn2.0.4	2.1.5-1.amzn2.0.5
inspectorssmplugin	1.0.436-1	1.0.438-1
kernel	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-devel	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-headers	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-tools	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
libsoup	2.56.0-6.amzn2.0.5	2.56.0-6.amzn2.0.7
libtasn1	4.10-1.amzn2.0.7	4.10-1.amzn2.0.8
libxml2	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
libxml2-devel	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
libxml2-python	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
marshmallow	4.2.1	4.2.2
pip	25.3	26.0.1
platformdirs	4.5.1	4.4.0
python-urllib3	1.25.9-1.amzn2.0.8	1.25.9-1.amzn2.0.9
python2-pyasn1	0.1.9-7.amzn2.0.2	0.1.9-7.amzn2.0.3
python3-pip	20.2.2-1.amzn2.0.14	20.2.2-1.amzn2.0.15
rich	14.3.1	14.3.2

Package Name	Previous Version	New Version
runc	1.3.4-1.amzn2	1.3.4-2.amzn2
tenacity	9.1.2	9.1.3
tqdm	4.67.1	4.67.3

Removed Packages

No packages were removed in this release.

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.989.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.35	1.42.38
botocore	1.42.35	1.42.38
cryptography	46.0.3	46.0.4
inspectorssmplugin	1.0.434-1	1.0.436-1
platformdirs	4.5.1	4.4.0
psutil	7.2.1	7.2.2

Removed Packages

No packages were removed in this release.

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64

kernel_version	5.10.247-246.989.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.24	1.42.31
botocore	1.42.24	1.42.31
dill	0.4.0	0.4.1
filelock	3.20.2	3.20.3
importlib_metadata	8.0.0	8.7.1
inspectorssmplugin	1.0.432-1	1.0.434-1

Package Name	Previous Version	New Version
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
libblkid	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
libfdisk	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
libmount	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
libsmartcols	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
libuuid	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
more-itertools	10.3.0	10.8.0
pyasn1	0.6.1	0.6.2
pycparser	2.23	3.0
regex	2025.11.3	2026.1.15
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
tomlkit	0.13.3	0.14.0
util-linux	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
zipp	3.19.2	3.23.0

Removed Packages

Package Name
grub2-tools-efi
grub2-tools-extra
inflect
jaraco.collections
typeguard

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-245.983.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.5
```

Updated Packages

Package Name	Previous Version	New Version
PyNaCl	1.6.1	1.6.2
boto3	1.42.16	1.42.19
botocore	1.42.16	1.42.19
inspectorssmplugin	1.0.430-1	1.0.431-1
packaging	25.0	24.2
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-245.983.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.13	1.42.16
botocore	1.42.13	1.42.16
flatbuffers	25.9.23	25.12.19
inspectorssmplugin	1.0.429-1	1.0.430-1
marshmallow	4.1.1	4.1.2
packaging	24.2	25.0
platformdirs	4.5.1	4.2.2
psutil	7.1.3	7.2.0
typer	0.20.0	0.21.0
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2

compute_architecture	x86_64
kernel_version	5.10.245-243.979.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
fonttools-4.61.0
```

Updated Packages

Package Name	Previous Version	New Version
anyio	4.11.0	4.12.0
boto3	1.41.5	1.42.3
botocore	1.41.5	1.42.3
platformdirs	4.2.2	4.5.0

Package Name	Previous Version	New Version
pylint	4.0.3	4.0.4
s3transfer	0.15.0	0.16.0
tomli	2.3.0	2.0.1
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
sniffio

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-241.978.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
psutil-7.1.3
```

Updated Packages

Package Name	Previous Version	New Version
PyNaCl	1.6.0	1.6.1
astroid	4.0.1	4.0.2
boost-date-time	1.53.0-27.amzn2.0.5	1.53.0-27.amzn2.0.6
boost-system	1.53.0-27.amzn2.0.5	1.53.0-27.amzn2.0.6
boost-thread	1.53.0-27.amzn2.0.5	1.53.0-27.amzn2.0.6
boto3	1.40.68	1.41.1
botocore	1.40.68	1.41.1
certifi	2025.10.5	2025.11.12
click	8.3.0	8.3.1
containerd	2.1.4-1.amzn2.0.1	2.1.4-1.amzn2.0.2

Package Name	Previous Version	New Version
curl	8.3.0-1.amzn2.0.9	8.3.0-1.amzn2.0.10
docker	25.0.13-1.amzn2.0.1	25.0.13-1.amzn2.0.2
inspectorssmplugin	1.0.410-1	1.0.418-1
kernel	5.10.245-241.976.amzn2	5.10.245-241.978.amzn2
kernel-devel	5.10.245-241.976.amzn2	5.10.245-241.978.amzn2
kernel-headers	5.10.245-241.976.amzn2	5.10.245-241.978.amzn2
kernel-tools	5.10.245-241.976.amzn2	5.10.245-241.978.amzn2
libcurl	8.3.0-1.amzn2.0.9	8.3.0-1.amzn2.0.10
libcurl-devel	8.3.0-1.amzn2.0.9	8.3.0-1.amzn2.0.10
lz4	1.7.5-2.amzn2.0.1	1.7.5-2.amzn2.0.2
pam	1.1.8-23.amzn2.0.4	1.1.8-23.amzn2.0.5
platformdirs	4.5.0	4.2.2
pydantic	2.12.4	2.9.2
pydantic_core	2.41.5	2.23.4
pylint	4.0.2	4.0.3
ruamel.yaml.clib	0.2.14	0.2.15
runc	1.3.2-2.amzn2	1.3.3-2.amzn2
s3transfer	0.14.0	0.15.0

Package Name	Previous Version	New Version
safety-schemas	0.0.16	0.0.14
tomli	2.0.1	2.3.0

Removed Packages

Package Name
typing-inspection

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
python_location	/usr/bin/python3.10
ssm_agent_version	3.3.3050.0
kernel_version	5.10.245-241.976.amzn2.x86_64
dcgm_version	/bin/bash: dcgmi: command not found
supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
ebs_volume_type	gp3
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
bind-export-libs	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-libs	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-libs-lite	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-license	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-utils	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
boto3	1.40.63	1.40.68
botocore	1.40.63	1.40.68
inspectorssmplugin	1.0.402-1	1.0.410-1

Package Name	Previous Version	New Version
marshmallow	4.0.1	4.1.0
packaging	25.0	24.2
pydantic	2.12.3	2.12.4
pydantic_core	2.41.4	2.41.5
regex	2025.10.23	2025.11.3
runc	1.3.2-1.amzn2	1.3.2-2.amzn2

Removed Packages

Package Name
psutil

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20251003

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
python_location	/usr/bin/python3.10
ssm_agent_version	3.3.3050.0
kernel_version	5.10.244-240.965.amzn2.x86_64

Package Name	Version
supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
ebs_volume_type	gp3
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
amazon-ssm-agent	3.3.2299.0-1.amzn2	3.3.3050.0-1.amzn2
boto3	1.40.39	1.40.44
botocore	1.40.39	1.40.44

Package Name	Previous Version	New Version
cryptography	46.0.1	46.0.2
cups-libs	1.6.3-51.amzn2.0.5	1.6.3-51.amzn2.0.6
inspectorssmplugin	1.0.396-1	1.0.398-1
isort	6.0.1	6.1.0
kernel	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-devel	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-headers	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-tools	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
libsoup	2.56.0-6.amzn2.0.4	2.56.0-6.amzn2.0.5
libtiff	4.0.3-35.amzn2.0.24	4.0.3-35.amzn2.0.25
microcode_ctl	2.1-47.amzn2.4.25	2.1-47.amzn2.4.26
nltk	3.9.1	3.9.2
openjpeg2	2.4.0-5.amzn2.0.1	2.4.0-5.amzn2.0.2
packaging	25.0	24.2
pandas	2.3.2	2.3.3
tomli	2.0.1	2.2.1
typing-inspection	0.4.1	0.4.2
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	dl2q
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.242-239.961.amzn2.x86_64
python_location	/usr/bin/python3.10
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
typing-inspection-0.4.1
```

Updated Packages

Package Name	Previous Version	New Version
anyio	4.10.0	4.11.0
bcrypt	4.3.0	5.0.0
boto3	1.40.34	1.40.39
botocore	1.40.34	1.40.39
flatbuffers	25.2.10	25.9.23
inspectorssmplugin	1.0.395-1	1.0.396-1
packaging	25.0	24.2
platformdirs	4.4.0	4.2.2
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.17.4	0.19.2

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Version 20240314

Release date: 2024-03-14

AMI name: Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20240314

Added

- AI 100 Platform SDK updated from version 1.10.0.200 to version **1.12.0.88**
- AI 100 Apps SDK updated from version 1.10.0.193 to version **1.12.0.87**
- SDK Version 1.12 adds support for transformer decoder models such as Llama-2 and Starcoder

Version 20240110

Release Date: 2024-01-10

AMI name: Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20240103

Added

- Qualcomm AI 100 Platform image upgraded to 1.10.0.200

Version 20231115

Release Date: 2023-11-15

AMI name: Deep Learning Base Qualcomm AMI (Amazon Linux 2) 20231115

Added

- Initial release of Deep Learning Base Qualcomm AMI (Amazon Linux 2) series.
  - Please refer to the official Qualcomm documentation for more information on the Platform and Apps SDK: https://quic.github.io/cloud-ai-sdk-pages/
  - Please refer to the official AWS documentation to learn more about dl2q instances: DL2q instances.

ARM64 Base DLAMI Release Notes

Below are the release notes for ARM64 Base DLAMI:

GPU

- AWS Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023)
- AWS Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04)
- AWS Deep Learning ARM64 Base GPU AMI (Amazon Linux 2023)
- AWS Deep Learning ARM64 Base GPU AMI (Ubuntu 24.04)
- AWS Deep Learning ARM64 Base GPU AMI (Ubuntu 22.04)
- AWS Deep Learning ARM64 Base GPU AMI (Amazon Linux 2)

AWS Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) ${YYYY-MM-DD}

> **Note**
>
> This DLAMI is now available on EC2 Image Builder as an Amazon-managed Base Image. For more information, refer to Using Deep Learning AMIs with EC2 Image Builder.

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-with-single-cuda-amazon-linux-2023/latest/ami-id && \
```

```
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux
 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260327
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260320
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260306
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260227
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260220
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260206
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260130
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260123
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260120
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260117
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260102
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251230
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251205
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251121
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251102
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251010
- Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20250930

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64
kernel_version	6.12.73-95.123.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
anyio	4.12.1	4.13.0
boto3	1.42.72	1.42.77
botocore	1.42.72	1.42.77
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
fastapi	0.135.1	0.135.2
importlib_metadata	9.0.0	8.7.1
inspectorssmplugin	1.0.455-1	1.0.459-1
ipython	9.11.0	9.12.0

Package Name	Previous Version	New Version
jsonpointer	3.0.0	3.1.1
marshmallow	4.2.2	4.2.3
narwhals	2.18.0	2.18.1
nh3	0.3.3	0.3.4
nltk	3.9.3	3.9.4
pipdeptree	2.32.0	2.34.0
pipenv	2026.2.1	2026.2.2
platformdirs	4.9.4	4.4.0
python-discovery	1.2.0	1.2.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0
starlette	0.52.1	1.0.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64

kernel_version	6.12.73-95.123.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.12.0	2.12.1
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
boto3	1.42.67	1.42.72
botocore	1.42.67	1.42.72
charset-normalizer	3.4.5	3.4.6
dask	2026.1.2	2026.3.0
fonttools	4.62.0	4.62.1
gdrcopy	2.5.1-1	2.5.2-1
gdrcopy-devel	2.5.1-1	2.5.2-1
gdrcopy-kmod	2.5.1-1dkms	2.5.2-1dkms
importlib_metadata	8.7.1	9.0.0
inspectorssmplugin	1.0.443-1	1.0.455-1
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.0.3	2026.2.1
platformdirs	4.4.0	4.9.4
pyOpenSSL	25.3.0	26.0.0
python-discovery	1.1.3	1.2.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64
kernel_version	6.12.73-95.123.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-6.12.73-95.123-1.0-0.amzn2023
lazy-loader-0.5

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.47	2.0.48
amazon-linux-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
black	26.1.0	26.3.0
boto3	1.42.58	1.42.62
botocore	1.42.58	1.42.62
charset-normalizer	3.4.4	3.4.5
container-selinux	2.242.0-1.amzn2023	2.245.0-1.amzn2023

Package Name	Previous Version	New Version
dnf-plugin-support-info	1.10-1.amzn2023	1.11-1.amzn2023
ec2-hibinit-agent	1.0.10-1.amzn2023	1.0.10-2.amzn2023
fastapi	0.133.1	0.135.1
filelock	3.24.3	3.25.0
ipython	9.10.0	9.11.0
isort	8.0.0	8.0.1
jxl-pixbuf-loader	0.10.3-54.amzn2023	0.10.3-55.amzn2023
kernel-livepatch-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
kernel6.12	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-devel	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-headers	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-libbpf	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-modules-extra	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-modules-extra-common	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-tools	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023

Package Name	Previous Version	New Version
libjxl	0.10.3-54.amzn2023	0.10.3-55.amzn2023
libpng	1.6.37-10.amzn2023.0.10	1.6.37-10.amzn2023.0.11
libsoup3	3.6.5-55.amzn2023	3.6.5-56.amzn2023
libssh	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-config	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-devel	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libxml2	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
libxml2-devel	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
lustre-client	2.15.6-25.amzn2023	2.15.6-27.amzn2023
platformdirs	4.9.2	4.9.4
plotly	6.5.2	6.6.0
redis	7.2.1	7.3.0
regex	2026.2.19	2026.2.28
selinux-policy	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
selinux-policy-targeted	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1

Package Name	Previous Version	New Version
shap	0.50.0	0.51.0
system-release	2023.10.20260216-0 .amzn2023	2023.10.20260302-0 .amzn2023
systemtap	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-client	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-runtime	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-dtrace	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
tifffile	2026.2.24	2026.3.3
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-6.12.68-92.122
lazy_loader

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200

operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
python-discovery-1.1.0
```

Updated Packages

Package Name	Previous Version	New Version
SQLAlchemy	2.0.46	2.0.47
async-lru	2.1.0	2.2.0
boto3	1.42.53	1.42.58
botocore	1.42.53	1.42.58
certifi	2026.1.4	2026.2.25
fastapi	0.129.0	0.133.1
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441-1	1.0.443-1
jupyterlab	4.5.4	4.5.5
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
redis	7.2.0	7.2.1
scipy	1.17.0	1.17.1
tifffile	2026.2.16	2026.2.24
typer	0.24.0	0.24.1
virtualenv	20.38.0	21.1.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.68-92.122-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
boto3	1.42.48	1.42.53

Package Name	Previous Version	New Version
botocore	1.42.48	1.42.53
cattrs	25.3.0	26.1.0
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
filelock	3.21.2	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
isort	7.0.0	8.0.0
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
kernel6.12	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-devel	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-headers	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023

Package Name	Previous Version	New Version
kernel6.12-libbpf	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-modules-extra	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-modules-extra-common	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-tools	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
librt	0.8.0	0.8.1
nh3	0.3.2	0.3.3
numba	0.63.1	0.64.0
numpy	2.3.5	2.4.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16

Package Name	Previous Version	New Version
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
pandas	3.0.0	3.0.1
pipdeptree	2.30.0	2.31.0
protobuf	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1
pylint	4.0.4	4.0.5
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
python3.12	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
python3.12-devel	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4

Package Name	Previous Version	New Version
python3.12-libs	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
redis	7.1.1	7.2.0
regex	2026.1.15	2026.2.19
rich	14.3.2	14.3.3
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
tifffile	2026.1.28	2026.2.16
typer	0.23.1	0.24.0
virtualenv	20.36.1	20.38.0
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

Package Name
kernel-livepatch-6.12.66-88.122

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	aarch64
kernel_version	6.12.64-87.122.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.43
botocore	1.42.38	1.42.43
dask	2026.1.1	2026.1.2
datacenter-gpu-manager-4-core	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda12	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda13	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary	4.5.1-1	4.5.2-1

Package Name	Previous Version	New Version
datacenter-gpu-manager-4-proprietary-cuda12	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.1-1	4.5.2-1
fastapi	0.128.0	0.128.2
fsspec	2026.1.0	2026.2.0
id	1.5.0	1.6.1
inspectorssmplugin	1.0.436-1	1.0.438-1
ipython	9.9.0	9.10.0
marshmallow	4.2.1	4.2.2
narwhals	2.15.0	2.16.0
opencv-python	4.13.0.90	4.13.0.92
pip	25.3	26.0.1
rich	14.3.1	14.3.2
tenacity	9.1.2	9.1.3
tqdm	4.67.1	4.67.3
wcwidth	0.5.2	0.5.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	aarch64
kernel_version	6.12.64-87.122.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.64-87.122-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
boto3	1.42.33	1.42.38
botocore	1.42.33	1.42.38
cmake	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-data	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-filesystem	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-rpm-macros	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5

Package Name	Previous Version	New Version
containerd	2.1.5-1.amzn2023.0.3	2.1.5-1.amzn2023.0.4
cryptography	46.0.3	46.0.4
datacenter-gpu-manager-4-core	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-cuda12	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-cuda13	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda12	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.0-1	4.5.1-1
debugpy	1.8.19	1.8.20
dnf-plugin-release-notification	1.2-1.amzn2023.0.2	1.3-1.amzn2023.0.1
ec2-hibinit-agent	1.0.10-0.amzn2023	1.0.10-1.amzn2023
gnupg2	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
gnupg2-smime	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
greenlet	3.3.0	3.3.1

Package Name	Previous Version	New Version
highway	1.2.0-30.amzn2023.0.1	1.2.0-31.amzn2023.0.2
inspectorssmplugin	1.0.434-1	1.0.436-1
jupyterlab	4.5.2	4.5.3
kernel-livepatch-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
kernel6.12	6.12.63-84.121.amzn2023	6.12.64-87.122.amzn2023
kernel6.12-devel	6.12.63-84.121.amzn2023	6.12.64-87.122.amzn2023
kernel6.12-headers	6.12.63-84.121.amzn2023	6.12.64-87.122.amzn2023
kernel6.12-libbpf	6.12.63-84.121.amzn2023	6.12.64-87.122.amzn2023
kernel6.12-modules-extra	6.12.63-84.121.amzn2023	6.12.64-87.122.amzn2023
kernel6.12-modules-extra-common	6.12.63-84.121.amzn2023	6.12.64-87.122.amzn2023
kernel6.12-tools	6.12.63-84.121.amzn2023	6.12.64-87.122.amzn2023
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libxml2	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15

Package Name	Previous Version	New Version
libxml2-devel	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
marshmallow	4.2.0	4.2.1
multidict	6.7.0	6.7.1
nbconvert	7.16.6	7.17.0
nvidia-container-toolkit	1.18.1-1	1.18.2-1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
openexr-libs	3.1.5-1.amzn2023.0.5	3.1.5-1.amzn2023.0.6
packaging	25.0	26.0
pathspec	1.0.3	1.0.4
platformdirs	4.5.1	4.4.0
psutil	7.2.1	7.2.2
python3-pip	21.3.1-2.amzn2023.0.14	21.3.1-2.amzn2023.0.15
python3-pip-wheel	21.3.1-2.amzn2023.0.14	21.3.1-2.amzn2023.0.15
python3.12-pip	23.2.1-4.amzn2023.0.5	23.2.1-4.amzn2023.0.6
python3.12-pip-wheel	23.2.1-4.amzn2023.0.5	23.2.1-4.amzn2023.0.6
pytokens	0.4.0	0.4.1

Package Name	Previous Version	New Version
rich	14.2.0	14.3.1
setuptools	80.10.1	80.10.2
system-release	2023.10.20260105-0 .amzn2023	2023.10.20260120-0 .amzn2023
tifffile	2026.1.14	2026.1.28
tzdata	2025b-1.amzn2023.0.1	2025c-1.amzn2023.0.1
wcwidth	0.3.1	0.5.2

Removed Packages

Package Name
kernel-livepatch-6.12.63-84.121

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09

default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
SQLAlchemy	2.0.45	2.0.46

Package Name	Previous Version	New Version
boto3	1.42.31	1.42.33
botocore	1.42.31	1.42.33
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
more-itertools	10.3.0	10.8.0
nvidia-ml-py	13.590.44	13.590.48
packaging	25.0	26.0
pandas	2.3.3	3.0.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.1
wheel	0.45.1	0.46.3

Removed Packages

Package Name
inflect
jaraco.collections
pytz

Package Name
typeguard

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260120

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
black	25.12.0	26.1.0
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
importlib_metadata	8.0.0	8.7.1
jaraco.functools	4.4.0	4.0.1
libnvidia-nscq	580.105.08-1	580.126.09-1
numpy	2.2.6	2.3.5
nvidia-imex	580.105.08-1	580.126.09-1
opencv-python	4.12.0.88	4.13.0.90

Package Name	Previous Version	New Version
packaging	25.0	24.2
platformdirs	4.5.1	4.2.2
pytokens	0.3.0	0.4.0
soupsieve	2.8.1	2.8.3
typing_extensions	4.12.2	4.15.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.24	1.42.30
botocore	1.42.24	1.42.30
dask	2025.12.0	2026.1.1

Package Name	Previous Version	New Version
filelock	3.20.2	3.20.3
fsspec	2025.12.0	2026.1.0
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.432-1	1.0.434-1
jaraco.context	6.0.2	6.1.0
jaraco.functools	4.0.1	4.4.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
librt	0.7.7	0.7.8
pathspec	1.0.2	1.0.3
plotly	6.5.1	6.5.2
prometheus_client	0.23.1	0.24.1
regex	2025.11.3	2026.1.15
scipy	1.16.3	1.17.0
tifffile	2025.12.20	2026.1.14
tomlkit	0.13.3	0.14.0
virtualenv	20.36.0	20.36.1
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.5
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.18	1.42.19
botocore	1.42.18	1.42.19
jaraco.context	6.0.2	5.3.0
json5	0.12.1	0.13.0
librt	0.7.5	0.7.7
more-itertools	10.3.0	10.8.0
packaging	24.2	25.0
pillow	12.0.0	12.1.0
ruamel.yaml	0.18.17	0.19.0

Package Name	Previous Version	New Version
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2

efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.16	1.42.18
botocore	1.42.16	1.42.18
celery	5.6.0	5.6.1
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430-1	1.0.431-1
jaraco.context	6.0.2	5.3.0

Package Name	Previous Version	New Version
jaraco.functools	4.0.1	4.4.0
kombu	5.6.1	5.6.2
packaging	24.2	25.0
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
exceptiongroup

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
python_location	/usr/bin/python3.9
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/

nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.1	1.42.3
botocore	1.42.1	1.42.3

Package Name	Previous Version	New Version
fastapi	0.123.4	0.123.9
jaraco.context	5.3.0	6.0.1
packaging	25.0	24.2
platformdirs	4.4.0	4.2.2
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
python_location	/usr/bin/python3.9
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5

nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
asttokens	3.0.0	3.0.1
billiard	4.2.2	4.2.3
boto3	1.40.73	1.41.1

Package Name	Previous Version	New Version
botocore	1.40.73	1.41.1
fastapi	0.121.2	0.121.3
importlib_metadata	8.0.0	8.7.0
inspectorssmplugin	1.0.411-1	1.0.418-1
jaraco.context	5.3.0	6.0.1
jupyterlab	4.4.10	4.5.0
kernel-livepatch-repo-s3	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
keyring	25.6.0	25.7.0
more-itertools	10.3.0	10.8.0
narwhals	2.11.0	2.12.0
plotly	6.4.0	6.5.0
ruamel.yaml.clib	0.2.14	0.2.15
s3transfer	0.14.0	0.15.0
system-release	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251102

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.9
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.3050.0
kernel_version	6.12.53-69.119.amzn2023.aarch64
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.8/
compute_architecture	aarch64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

annotated-doc-0.0.3
apr-util-lmdb-1.6.3-1.amzn2023.0.2
kernel-livepatch-6.12.53-69.119-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
Cython	3.1.4	3.1.6
aiohttp	3.13.0	3.13.2
amazon-linux-repo-s3	2023.9.20251014-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
arrow	1.3.0	1.4.0
audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
audit-libs	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4

Package Name	Previous Version	New Version
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.54	1.40.64
botocore	1.40.54	1.40.64
fastapi	0.119.0	0.120.4
fsspec	2025.9.0	2025.10.0
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
grub2-common	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-efi-aa64-ec2	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-pc-modules	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools-minimal	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
importlib_metadata	8.7.0	8.0.0
inspectorssmplugin	1.0.400-1	1.0.404-1
ipywidgets	8.1.7	8.1.8
jaraco.context	5.3.0	6.0.1
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1

Package Name	Previous Version	New Version
jupyterlab	4.4.9	4.4.10
jupyterlab_server	2.27.3	2.28.0
jupyterlab_widgets	3.0.15	3.0.16
kernel-livepatch-repo-s3	2023.9.20251014-0.amzn2023	2023.9.20251027-0.amzn2023
kernel6.12	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-devel	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-headers	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-libbpf	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-modules-extra	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-modules-extra-common	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-tools	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
lark	1.3.0	1.3.1
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
libnvidia-container-tools	1.17.9-1	1.18.0-1

Package Name	Previous Version	New Version
libnvidia-container1	1.17.9-1	1.18.0-1
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
matplotlib-inline	0.1.7	0.2.1
narwhals	2.8.0	2.10.1
nh3	0.3.1	0.3.2
nvidia-container-toolkit	1.17.9-1	1.18.0-1
nvidia-container-toolkit-base	1.17.9-1	1.18.0-1
packaging	25.0	24.2
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1
pip	25.2	25.3

Package Name	Previous Version	New Version
platformdirs	4.4.0	4.2.2
psutil	7.1.0	7.1.3
pydantic	2.12.2	2.12.3
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
redis	6.4.0	7.0.1
regex	2025.9.18	2025.10.23
ruamel.yaml	0.18.15	0.18.16
runc	1.3.1-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.48.0	0.49.3

Package Name	Previous Version	New Version
system-release	2023.9.20251014-0.amzn2023	2023.9.20251027-0.amzn2023
typer	0.19.2	0.20.0
typing_extensions	4.15.0	4.12.2
virtualenv	20.35.3	20.35.4
widgetsnbextension	4.0.14	4.0.15
xyzservices	2025.4.0	2025.10.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-6.12.46-66.121
types-python-dateutil

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.9
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.3050.0
kernel_version	6.12.46-66.121.amzn2023.aarch64
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.8/
compute_architecture	aarch64

Package Changes from Previous Release

Note

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our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.12.15	3.13.0
attrs	25.3.0	25.4.0
boto3	1.40.44	1.40.49
botocore	1.40.44	1.40.49
cattrs	25.2.0	25.3.0
certifi	2025.8.3	2025.10.5
efa	2.17.2-1.amzn2023	2.17.3-1.amzn2023
fastapi	0.118.0	0.118.3
frozenlist	1.7.0	1.8.0
inspectorssmplugin	1.0.398-1	1.0.399-1
libnccl-ofi	1.16.2-1.amzn2023	1.16.3-1.amzn2023
more-itertools	10.3.0	10.8.0
multidict	6.6.4	6.7.0
narwhals	2.6.0	2.7.0
nh3	0.3.0	0.3.1

Package Name	Previous Version	New Version
platformdirs	4.2.2	4.4.0
propcache	0.3.2	0.4.1
psycopg2-binary	2.9.10	2.9.11
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
pylint	3.3.8	3.3.9
python-json-logger	3.3.0	4.0.0
rich	14.1.0	14.2.0
tomli	2.2.1	2.3.0
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
typing_extensions	4.12.2	4.15.0
virtualenv	20.34.0	20.35.1
websocket-client	1.8.0	1.9.0
yarl	1.20.1	1.22.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Amazon Linux 2023) 20250930

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	aarch64
kernel_version	6.12.40-64.114.amzn2023.aarch64
python_location	/usr/bin/python3.9
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

AWS Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04)

Note

For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) ${YYYY-MM-DD}

Note

This DLAMI is now available on EC2 Image Builder as an Amazon-managed Base Image. For more information, refer to Using Deep Learning AMIs with EC2 Image Builder.

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-with-single-cuda-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260327
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260320
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260307
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260227
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260220
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260206
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260130
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260123
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260121
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260119
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260106
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251230
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251205
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251121
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251031
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251010
- Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20250930

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
anyio	4.12.1	4.13.0
awscli	1.44.63	1.44.67
bind9-dnsutils	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
bind9-host	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
bind9-libs	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
boto3	1.42.73	1.42.77
botocore	1.42.73	1.42.77
build	1.4.0	1.4.2

Package Name	Previous Version	New Version
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
docker-ce-cli	29.3.0-1~ubuntu.22.04~jammy	29.3.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.3.0-1~ubuntu.22.04~jammy	29.3.1-1~ubuntu.22.04~jammy
fastapi	0.135.1	0.135.2
importlib_metadata	8.7.1	9.0.0
inspectorssmplugin	1.0.456	1.0.459
ipython	8.38.0	8.39.0
jaraco.context	6.1.0	6.1.2
libnss-systemd	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libpam-systemd	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libsystemd0	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libtiff5	4.3.0-6ubuntu0.12	4.3.0-6ubuntu0.13
libudev-dev	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libudev1	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libxnvctrl0	595.45.04-1ubuntu1	595.58.03-1ubuntu1
marshmallow	4.2.2	4.2.3
nh3	0.3.3	0.3.4
nltk	3.9.3	3.9.4

Package Name	Previous Version	New Version
pipdeptree	2.32.0	2.34.0
pipenv	2026.2.1	2026.2.2
platformdirs	4.9.4	4.4.0
python-discovery	1.2.0	1.2.1
python3-openssl	21.0.0-1	21.0.0-1ubuntu0.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0
starlette	0.52.1	1.0.0
systemd-sysv	249.11-0ubuntu3.17	249.11-0ubuntu3.19
tomli	2.4.0	2.4.1
udev	249.11-0ubuntu3.17	249.11-0ubuntu3.19

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1050-aws

python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1050-6.8.0-1050.53~22.04.1
```

linux-aws-6.8-tools-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-headers-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-image-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-modules-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-tools-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
lustre-client-modules-6.8.0-1050-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.12.0	2.12.1
attrs	25.4.0	26.1.0
awscli	1.44.57	1.44.63
boto3	1.42.67	1.42.73
botocore	1.42.67	1.42.73
charset-normalizer	3.4.5	3.4.6
coreutils	8.32-4.1ubuntu1.2	8.32-4.1ubuntu1.3
dask	2026.1.2	2026.3.0
devscripts	2.22.1ubuntu1	2.22.1ubuntu1.2
docker-compose-plugin	5.1.0-1~ubuntu.22.04~jammy	5.1.1-1~ubuntu.22.04~jammy
fonttools	4.62.0	4.62.1
gdrcopy	2.5.1	2.5.2

Package Name	Previous Version	New Version
gdrcopy-tests	2.5.1	2.5.2
gdrdrv-dkms	2.5.1	2.5.2
importlib_metadata	8.7.1	9.0.0
inspectorssmplugin	1.0.443	1.0.456
jaraco.context	6.1.1	6.1.0
libgdrapi	2.5.1	2.5.2
libssh-4	0.9.6-2ubuntu0.22.04.6	0.9.6-2ubuntu0.22.04.7
linux-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-headers-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-image-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-libc-dev	5.15.0-171.181	5.15.0-173.183
linux-tools-common	5.15.0-171.181	5.15.0-173.183
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.0.3	2026.2.1
pyOpenSSL	25.3.0	26.0.0
pyasn1	0.6.2	0.6.3
python-discovery	1.1.3	1.2.0

Package Name	Previous Version	New Version
python3-cryptography	3.4.8-1ubuntu2.3	3.4.8-1ubuntu2.4
snapd	2.73+ubuntu22.04	2.73+ubuntu22.04.1
vim-common	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-runtime	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-tiny	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
xxd	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1046
linux-aws-6.8-headers-6.8.0-1047
linux-aws-6.8-tools-6.8.0-1046
linux-aws-6.8-tools-6.8.0-1047
linux-headers-6.8.0-1046-aws
linux-headers-6.8.0-1047-aws
linux-image-6.8.0-1046-aws
linux-image-6.8.0-1047-aws
linux-modules-6.8.0-1046-aws
linux-modules-6.8.0-1047-aws
linux-tools-6.8.0-1046-aws

Package Name
linux-tools-6.8.0-1047-aws
lustre-client-modules-6.8.0-1047-aws

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1047-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3

ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.47	2.0.48
awscli	1.44.48	1.44.53
black	26.1.0	26.3.0
boto3	1.42.58	1.42.63
botocore	1.42.58	1.42.63
charset-normalizer	3.4.4	3.4.5
docker-ce-cli	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-ce-rootless-extras	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
fastapi	0.133.1	0.135.1
filelock	3.24.3	3.25.0
git-man	2.34.1-1ubuntu1.16	2.34.1-1ubuntu1.17
isort	8.0.0	8.0.1
libnss3	3.98-0ubuntu0.22.04.2	3.98-0ubuntu0.22.04.3
python-discovery	1.1.0	1.1.1
redis	7.2.1	7.3.0
regex	2026.2.19	2026.2.28
sosreport	4.9.2-0ubuntu0~22.04.1	4.10.2-0ubuntu0~22.04.1
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	aarch64
kernel_version	6.8.0-1047-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-aws-6.8-tools-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-headers-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-image-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-tools-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
lustre-client-modules-6.8.0-1047-aws-2.15.6-1fsx28
python-discovery-1.1.0

Updated Packages

Package Name	Previous Version	New Version
SQLAlchemy	2.0.46	2.0.47
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
awscli	1.44.43	1.44.48
boto3	1.42.53	1.42.58
botocore	1.42.53	1.42.58
certifi	2026.1.4	2026.2.25
cpp-12	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
docker-compose-plugin	5.0.2-1~ubuntu.22.04~jammy	5.1.0-1~ubuntu.22.04~jammy
fastapi	0.129.0	0.133.1
gcc-12-base	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
git-man	2.34.1-1ubuntu1.15	2.34.1-1ubuntu1.16
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441	1.0.443
libasan8	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libatomic1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcc1-0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcurl3-gnutls	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libcurl4	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libgcc-12-dev	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgcc-s1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgfortran5	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgomp1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
libhwasan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libitm1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
liblsan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libstdc++6	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libtsan2	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libubsan1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-headers-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-image-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-libc-dev	5.15.0-170.180	5.15.0-171.181
linux-tools-common	5.15.0-170.180	5.15.0-171.181
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
nltk	3.9.2	3.9.3
platformdirs	4.9.2	4.4.0
redis	7.2.0	7.2.1

Package Name	Previous Version	New Version
typer	0.24.0	0.24.1
u-boot-tools	2022.01+dfsg-2ubuntu2.6	2022.01+dfsg-2ubuntu2.7
virtualenv	20.38.0	21.1.0

Removed Packages

Package Name
lustre-client-modules-6.8.0-1046-aws

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1046-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1046-6.8.0-1046.49~22.04.1
linux-aws-6.8-tools-6.8.0-1046-6.8.0-1046.49~22.04.1
linux-headers-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-image-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-modules-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-tools-6.8.0-1046-aws-6.8.0-1046.49~22.04.1

```
lustre-client-modules-6.8.0-1046-aws-2.15.6-1fsx26
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
awscli	1.44.38	1.44.43
boto3	1.42.48	1.42.53
botocore	1.42.48	1.42.53
cloud-init	25.2-0ubuntu1~22.04.1	25.3-0ubuntu1~22.04.1
cpp-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
filelock	3.21.2	3.24.3
g++-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
gcc-11-base	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
gfortran-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
isort	7.0.0	8.0.0
libasan6	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
libgcc-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgfortran-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgnutls30	3.7.3-4ubuntu1.7	3.7.3-4ubuntu1.8
librt	0.8.0	0.8.1
libssh-4	0.9.6-2ubuntu0.22.04.5	0.9.6-2ubuntu0.22.04.6
libstdc++-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libtsan0	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-headers-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-image-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
nh3	0.3.2	0.3.3
pipdeptree	2.30.0	2.31.0
platformdirs	4.7.1	4.4.0
pylint	4.0.4	4.0.5
redis	7.1.1	7.2.0

Package Name	Previous Version	New Version
regex	2026.1.15	2026.2.19
rich	14.3.2	14.3.3
typer	0.23.1	0.24.0
virtualenv	20.36.1	20.38.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1044
linux-aws-6.8-headers-6.8.0-1045
linux-aws-6.8-tools-6.8.0-1044
linux-aws-6.8-tools-6.8.0-1045
linux-headers-6.8.0-1044-aws
linux-headers-6.8.0-1045-aws
linux-image-6.8.0-1044-aws
linux-image-6.8.0-1045-aws
linux-modules-6.8.0-1044-aws
linux-modules-6.8.0-1045-aws
linux-tools-6.8.0-1044-aws
linux-tools-6.8.0-1045-aws
lustre-client-modules-6.8.0-1045-aws

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0
amazon-cloudwatch-agent	1.300063.0b1323-1	1.300064.0b1337-1
awscli	1.44.28	1.44.33
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.43
botocore	1.42.38	1.42.43
dask	2026.1.1	2026.1.2
datacenter-gpu-manager-4-core	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda12	4.5.1-1	4.5.2-1

Package Name	Previous Version	New Version
datacenter-gpu-manager-4-cuda13	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda12	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.1-1	4.5.2-1
docker-ce-cli	29.2.0-1~ubuntu.22.04~jammy	29.2.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.2.0-1~ubuntu.22.04~jammy	29.2.1-1~ubuntu.22.04~jammy
fastapi	0.128.0	0.128.2
fsspec	2026.1.0	2026.2.0
id	1.5.0	1.6.1
inspectorssmplugin	1.0.436	1.0.438
libc-bin	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc-dev-bin	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc-devtools	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc6	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc6-dev	2.35-0ubuntu3.12	2.35-0ubuntu3.13

Package Name	Previous Version	New Version
libglib2.0-0	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-bin	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-data	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-dev	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-dev-bin	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libldap-2.5-0	2.5.19+dfsg-0ubuntu0.22.04.1	2.5.20+dfsg-0ubuntu0.22.04.1
libldap-common	2.5.19+dfsg-0ubuntu0.22.04.1	2.5.20+dfsg-0ubuntu0.22.04.1
libmysqlclient21	8.0.44-0ubuntu0.22.04.2	8.0.45-0ubuntu0.22.04.1
libpython3.10	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-dev	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-minimal	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-stdlib	3.10.12-1~22.04.13	3.10.12-1~22.04.14
locales	2.35-0ubuntu3.12	2.35-0ubuntu3.13
marshmallow	4.2.1	4.2.2
pip	25.3	26.0.1
platformdirs	4.4.0	4.5.1
python3.10-dev	3.10.12-1~22.04.13	3.10.12-1~22.04.14
python3.10-minimal	3.10.12-1~22.04.13	3.10.12-1~22.04.14

Package Name	Previous Version	New Version
python3.10-venv	3.10.12-1~22.04.13	3.10.12-1~22.04.14
rich	14.3.1	14.3.2
tenacity	9.1.2	9.1.3
tqdm	4.67.1	4.67.3
ubuntu-minimal	1.481.4	1.481.5
ubuntu-server	1.481.4	1.481.5
ubuntu-standard	1.481.4	1.481.5
wcwidth	0.5.2	0.5.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/

nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.23	1.44.28

Package Name	Previous Version	New Version
boto3	1.42.33	1.42.38
botocore	1.42.33	1.42.38
cryptography	46.0.3	46.0.4
datacenter-gpu-manager-4-core	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-cuda12	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-cuda13	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda12	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.0-1	4.5.1-1
docker-buildx-plugin	0.30.1-1~ubuntu.22.04~jammy	0.31.1-1~ubuntu.22.04~jammy
docker-ce-cli	29.1.5-1~ubuntu.22.04~jammy	29.2.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.5-1~ubuntu.22.04~jammy	29.2.0-1~ubuntu.22.04~jammy
greenlet	3.3.0	3.3.1
inspectorssmplugin	1.0.434	1.0.436

Package Name	Previous Version	New Version
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libssl-dev	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
libssl3	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
linux-libc-dev	5.15.0-164.174	5.15.0-168.178
linux-tools-common	5.15.0-164.174	5.15.0-168.178
marshmallow	4.2.0	4.2.1
multidict	6.7.0	6.7.1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
packaging	25.0	26.0
pathspec	1.0.3	1.0.4
psutil	7.2.1	7.2.2
pytokens	0.4.0	0.4.1
rich	14.2.0	14.3.1
screen	4.9.0-1	4.9.0-1ubuntu0.1
setuptools	80.10.1	80.10.2
wcwidth	0.3.1	0.5.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.23
boto3	1.42.31	1.42.33
botocore	1.42.31	1.42.33
httplib2	0.31.1	0.31.2
jmespath	1.0.1	1.1.0
libc-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libxml2	2.9.13+dfsg-1ubuntu0.10	2.9.13+dfsg-1ubuntu0.11
locales	2.35-0ubuntu3.11	2.35-0ubuntu3.12
nvidia-ml-py	13.590.44	13.590.48
packaging	25.0	26.0
platformdirs	4.4.0	4.5.1

Package Name	Previous Version	New Version
python3-pyasn1	0.4.8-1	0.4.8-1ubuntu0.1
wcwidth	0.3.0	0.3.1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.43.3
ofi_nccl_version	1.16.3

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
SQLAlchemy	2.0.45	2.0.46
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
docker-compose-plugin	5.0.1-1~ubuntu.22.04~jammy	5.0.2-1~ubuntu.22.04~jammy
jaraco.text	3.12.1	4.0.0

Package Name	Previous Version	New Version
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
libc-dev-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-devtools	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6-dev	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libglib2.0-0	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-data	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
more-itertools	10.3.0	10.8.0
nvidia-imex	580.105.08-1	580.126.09-1
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6
pytokens	0.3.0	0.4.0
setuptools	80.9.0	80.10.1
wcwidth	0.2.14	0.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260119

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.43.3

ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.4	3.1.5
amazon-cloudwatch-agent	1.300062.0b1304-1	1.300063.0b1323-1
anyio	4.12.0	4.12.1
awscli	1.44.12	1.44.20
black	25.12.0	26.1.0
boto3	1.42.22	1.42.30

Package Name	Previous Version	New Version
botocore	1.42.22	1.42.30
build	1.3.0	1.4.0
dask	2025.12.0	2026.1.1
datacenter-gpu-manager-4-core	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-cuda12	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-cuda13	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-proprietary	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-proprietary-cuda12	4.4.2-1	4.5.0-1
datacenter-gpu-manager-4-proprietary-cuda13	4.4.2-1	4.5.0-1
dill	0.4.0	0.4.1
dirmngr	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
docker-ce-cli	29.1.3-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.3-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
filelock	3.20.2	3.20.3

Package Name	Previous Version	New Version
fsspec	2025.12.0	2026.1.0
gnupg	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gnupg-l10n	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gnupg-utils	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gpg	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gpg-agent	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gpg-wks-client	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gpg-wks-server	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gpgconf	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gpgsm	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
gpgv	2.2.27-3ubuntu2.4	2.2.27-3ubuntu2.5
httplib2	0.31.0	0.31.1
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.432	1.0.434
jaraco.context	6.0.2	6.1.0
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libglib2.0-0	2.72.4-0ubuntu2.6	2.72.4-0ubuntu2.7
libglib2.0-bin	2.72.4-0ubuntu2.6	2.72.4-0ubuntu2.7
libglib2.0-data	2.72.4-0ubuntu2.6	2.72.4-0ubuntu2.7
libglib2.0-dev	2.72.4-0ubuntu2.6	2.72.4-0ubuntu2.7

Package Name	Previous Version	New Version
libglib2.0-dev-bin	2.72.4-0ubuntu2.6	2.72.4-0ubuntu2.7
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libnetsnmptrapd40	5.9.1+dfsg-1ubuntu2.8	5.9.1+dfsg-1ubuntu2.9
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpython3.10	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-stdlib	3.10.12-1~22.04.12	3.10.12-1~22.04.13
librt	0.7.7	0.7.8
libsnmp-base	5.9.1+dfsg-1ubuntu2.8	5.9.1+dfsg-1ubuntu2.9
libsnmp-dev	5.9.1+dfsg-1ubuntu2.8	5.9.1+dfsg-1ubuntu2.9
libsnmp-perl	5.9.1+dfsg-1ubuntu2.8	5.9.1+dfsg-1ubuntu2.9
libsnmp40	5.9.1+dfsg-1ubuntu2.8	5.9.1+dfsg-1ubuntu2.9
libsodium23	1.0.18-1build2	1.0.18-1ubuntu0.22.04.1

Package Name	Previous Version	New Version
libtasn1-6	4.18.0-4ubuntu0.1	4.18.0-4ubuntu0.2
libxslt1.1	1.1.34-4ubuntu0.22.04.4	1.1.34-4ubuntu0.22.04.5
more-itertools	10.8.0	10.3.0
pathspec	0.12.1	1.0.3
platformdirs	4.5.1	4.2.2
pyasn1	0.6.1	0.6.2
python3-urllib3	1.26.5-1~exp1ubuntu0.4	1.26.5-1~exp1ubuntu0.5
python3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-venv	3.10.12-1~22.04.12	3.10.12-1~22.04.13
regex	2025.11.3	2026.1.15
snapd	2.72+ubuntu22.04	2.73+ubuntu22.04
tomlkit	0.13.3	0.14.0
typer	0.21.0	0.21.1
urllib3	2.6.2	2.6.3
virtualenv	20.35.4	20.36.1
zope.interface	8.1.1	8.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20260106

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.13.2	3.13.3
astroid	4.0.2	4.0.3
awscli	1.44.8	1.44.12
boto3	1.42.18	1.42.22
botocore	1.42.18	1.42.22
celery	5.6.1	5.6.2
certifi	2025.11.12	2026.1.4
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy
filelock	3.20.1	3.20.2
importlib_metadata	8.0.0	8.7.1
inspectorssmplugin	1.0.431	1.0.432

Package Name	Previous Version	New Version
ipython	8.37.0	8.38.0
jaraco.context	6.0.2	5.3.0
jaraco.functools	4.4.0	4.0.1
librt	0.7.5	0.7.7
marshmallow	4.1.2	4.2.0
more-itertools	10.8.0	10.3.0
pillow	12.0.0	12.1.0
platformdirs	4.2.2	4.5.1
ruamel.yaml	0.18.17	0.19.1

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws

python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.6	1.44.8
boto3	1.42.16	1.42.18
botocore	1.42.16	1.42.18
celery	5.6.0	5.6.1
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430	1.0.431
jaraco.functools	4.0.1	4.4.0
kombu	5.6.1	5.6.2
packaging	25.0	24.2
psutil	7.2.0	7.2.1
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	aarch64
kernel_version	6.8.0-1043-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

fonttools-4.61.0
librt-0.6.3
tzlocal-5.3.1

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
anyio	4.11.0	4.12.0
awscli	1.43.5	1.43.9
billiard	4.2.3	4.2.4
binutils-aarch64-linux-gnu	2.38-4ubuntu2.10	2.38-4ubuntu2.11
binutils-common	2.38-4ubuntu2.10	2.38-4ubuntu2.11
boto3	1.41.5	1.42.3
botocore	1.41.5	1.42.3
celery	5.5.3	5.6.0
containerd.io	2.1.5-1~ubuntu.22.04~jammy	2.2.0-2~ubuntu.22.04~jammy
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.0-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-ce-rootless-extras	29.1.0-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-compose-plugin	2.40.3-1~ubuntu.22.04~jammy	5.0.0-1~ubuntu.22.04~jammy
fastapi	0.122.0	0.123.9
fsspec	2025.10.0	2025.12.0
gdrcopy	2.5-1	2.5.1
gdrcopy-tests	2.5-1	2.5.1
gdrdrv-dkms	2.5-1	2.5.1
greenlet	3.2.4	3.3.0
importlib_metadata	8.0.0	8.7.0
kombu	5.5.4	5.6.1
libbinutils	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf-nobfd0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libgdrapi	2.5-1	2.5.1
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1
linux-libc-dev	5.15.0-161.171	5.15.0-163.173

Package Name	Previous Version	New Version
linux-tools-common	5.15.0-161.171	5.15.0-163.173
mypy	1.18.2	1.19.0
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-imex	580.95.05-1	580.105.08-1
packaging	24.2	25.0
platformdirs	4.2.2	4.5.0
pylint	4.0.3	4.0.4
s3transfer	0.15.0	0.16.0
tomli	2.0.1	2.3.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1040
linux-aws-6.8-tools-6.8.0-1040
linux-headers-6.8.0-1040-aws
linux-image-6.8.0-1040-aws
linux-modules-6.8.0-1040-aws
linux-tools-6.8.0-1040-aws
sniffio

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1043-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1043-6.8.0-1043.45~22.04.1
linux-aws-6.8-tools-6.8.0-1043-6.8.0-1043.45~22.04.1
linux-headers-6.8.0-1043-aws-6.8.0-1043.45~22.04.1
linux-image-6.8.0-1043-aws-6.8.0-1043.45~22.04.1
linux-modules-6.8.0-1043-aws-6.8.0-1043.45~22.04.1
linux-tools-6.8.0-1043-aws-6.8.0-1043.45~22.04.1
lustre-client-modules-6.8.0-1043-aws-2.15.6-1fsx24
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300061.0b1289-1	1.300062.0b1304-1
asttokens	3.0.0	3.0.1
awscli	1.42.73	1.43.1
billiard	4.2.2	4.2.3

Package Name	Previous Version	New Version
boto3	1.40.73	1.41.1
botocore	1.40.73	1.41.1
click	8.3.0	8.3.1
docker-ce-cli	29.0.0-1~ubuntu.22.04~jammy	29.0.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.0.0-1~ubuntu.22.04~jammy	29.0.2-1~ubuntu.22.04~jammy
fastapi	0.121.2	0.121.3
importlib_metadata	8.0.0	8.7.0
inspectorssmplugin	1.0.411	1.0.418
keyring	25.6.0	25.7.0
libmysqlclient21	8.0.43-0ubuntu0.22.04.2	8.0.44-0ubuntu0.22.04.1
linux-aws	6.8.0-1041.43~22.04.1	6.8.0-1043.45~22.04.1
linux-headers-aws	6.8.0-1041.43~22.04.1	6.8.0-1043.45~22.04.1
linux-image-aws	6.8.0-1041.43~22.04.1	6.8.0-1043.45~22.04.1
lustre-client-utils	2.15.6-1fsx21	2.15.6-1fsx24
packaging	25.0	24.2
platformdirs	4.2.2	4.5.0
redis	7.0.1	7.1.0

Package Name	Previous Version	New Version
ruamel.yaml.clib	0.2.14	0.2.15
s3transfer	0.14.0	0.15.0
starlette	0.49.3	0.50.0
tomli	2.0.1	2.3.0
zope.interface	8.1	8.1.1

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1041
linux-aws-6.8-tools-6.8.0-1041
linux-headers-6.8.0-1041-aws
linux-image-6.8.0-1041-aws
linux-modules-6.8.0-1041-aws
linux-tools-6.8.0-1041-aws
lustre-client-modules-6.8.0-1041-aws

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251031

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	aarch64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
annotated-doc-0.0.3
```

Updated Packages

Package Name	Previous Version	New Version
SQLAlchemy	2.0.43	2.0.44
aiohttp	3.13.0	3.13.2
amazon-cloudwatch-agent	1.300059.0b1207-1	1.300060.0b1248-1
astroid	3.3.11	4.0.1
awscli	1.42.49	1.42.63
bind9-dnsutils	9.18.39-0ubuntu0.22.04.1	9.18.39-0ubuntu0.22.04.2
bind9-host	9.18.39-0ubuntu0.22.04.1	9.18.39-0ubuntu0.22.04.2
bind9-libs	9.18.39-0ubuntu0.22.04.1	9.18.39-0ubuntu0.22.04.2
binutils-aarch64-linux-gnu	2.38-4ubuntu2.8	2.38-4ubuntu2.10
binutils-common	2.38-4ubuntu2.8	2.38-4ubuntu2.10
boto3	1.40.49	1.40.63

Package Name	Previous Version	New Version
botocore	1.40.49	1.40.63
charset-normalizer	3.4.3	3.4.4
containerd.io	1.7.28-0~ubuntu.22.04~jammy	1.7.28-1~ubuntu.22.04~jammy
cryptography	46.0.2	46.0.3
dask	2025.9.1	2025.10.0
distro-info-data	0.52ubuntu0.9	0.52ubuntu0.11
docker-compose-plugin	2.40.0-1~ubuntu.22.04~jammy	2.40.3-1~ubuntu.22.04~jammy
fastapi	0.118.3	0.120.3
fsspec	2025.9.0	2025.10.0
idna	3.10	3.11
iniconfig	2.1.0	2.3.0
inspectorssmplugin	1.0.399	1.0.402
isort	6.1.0	7.0.0
jaraco.context	5.3.0	6.0.1
jaraco.functools	4.0.1	4.3.0
java-11-amazon-corretto-jdk	11.0.28.6-1	11.0.29.7-1
libbinutils	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf-nobfd0	2.38-4ubuntu2.8	2.38-4ubuntu2.10

Package Name	Previous Version	New Version
libctf0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libnvidia-container-tools	1.17.8-1	1.18.0-1
libnvidia-container1	1.17.8-1	1.18.0-1
libssh-4	0.9.6-2ubuntu0.22.04.4	0.9.6-2ubuntu0.22.04.5
libxml2	2.9.13+dfsg-1ubuntu0.9	2.9.13+dfsg-1ubuntu0.10
lintian	2.114.0ubuntu1.6	2.114.0ubuntu1.7
linux-libc-dev	5.15.0-157.167	5.15.0-161.171
linux-tools-common	5.15.0-157.167	5.15.0-161.171
matplotlib-inline	0.1.7	0.2.1
nh3	0.3.1	0.3.2
nvidia-container-toolkit-base	1.17.8-1	1.18.0-1
pbr	7.0.1	7.0.2
pillow	11.3.0	12.0.0
pip	25.2	25.3
pipdeptree	2.28.0	2.29.0
psutil	7.1.0	7.1.2
pydantic	2.12.0	2.12.3
pydantic_core	2.41.1	2.41.4

Package Name	Previous Version	New Version
pylint	3.3.9	4.0.2
pytokens	0.1.10	0.2.0
redis	6.4.0	7.0.1
regex	2025.9.18	2025.10.23
ruamel.yaml	0.18.15	0.18.16
snapd	2.68.5+ubuntu22.04.1	2.71+ubuntu22.04
sosreport	4.8.2-0ubuntu0~22.04.2	4.9.2-0ubuntu0~22.04.1
starlette	0.48.0	0.49.1
toolz	1.0.0	1.1.0
typer	0.19.2	0.20.0
typing_extensions	4.15.0	4.12.2
virtualenv	20.35.1	20.35.4
zipp	3.19.2	3.23.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1039
linux-aws-6.8-tools-6.8.0-1039
linux-headers-6.8.0-1039-aws
linux-image-6.8.0-1039-aws

Package Name
linux-modules-6.8.0-1039-aws
linux-tools-6.8.0-1039-aws

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1

Package Name	Version
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21
```

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.12.15	3.13.0
attrs	25.3.0	25.4.0
awscli	1.42.44	1.42.49
boto3	1.40.44	1.40.49
botocore	1.40.44	1.40.49
certifi	2025.8.3	2025.10.5
docker-buildx-plugin	0.29.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
fastapi	0.118.0	0.118.3
filelock	3.19.1	3.20.0
frozenlist	1.7.0	1.8.0
importlib_metadata	8.7.0	8.0.0
inspectorssmplugin	1.0.398	1.0.399
jaraco.functools	4.0.1	4.3.0

Package Name	Previous Version	New Version
libnccl-ofi	1.16.2-1	1.16.3-1
libnss-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libpam-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libsystemd0	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev-dev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev1	249.11-0ubuntu3.16	249.11-0ubuntu3.17
linux-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-image-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
lustre-client-modules-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
more-itertools	10.8.0	10.3.0
multidict	6.6.4	6.7.0
nh3	0.3.0	0.3.1
platformdirs	4.4.0	4.5.0
propcache	0.3.2	0.4.1
psycopg2-binary	2.9.10	2.9.11
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1

Package Name	Previous Version	New Version
pylint	3.3.8	3.3.9
rich	14.1.0	14.2.0
systemd-sysv	249.11-0ubuntu3.16	249.11-0ubuntu3.17
tomli	2.2.1	2.3.0
udev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
virtualenv	20.34.0	20.35.1
yarl	1.20.1	1.22.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
lustre-client-modules-6.8.0-1039-aws

Deep Learning ARM64 Base AMI with Single CUDA (Ubuntu 22.04) 20250930

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1039-aws

Package Name	Version
python_location	/usr/bin/python3.10
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

AWS Deep Learning ARM64 Base GPU AMI (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-oss-nvidia-driver-gpu-amazon-linux-2023/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux
 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260327
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260320
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260307
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260223
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260130
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260121
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260116
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260102
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251230
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251209
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251202
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251121
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251101
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251010
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250926

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64
kernel_version	6.12.73-95.123.amzn2023.aarch64
python_location	/usr/bin/python3.12

nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
anyio	4.12.1	4.13.0
boto3	1.42.73	1.42.78
botocore	1.42.73	1.42.78
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
fastapi	0.135.1	0.135.2
fsspec	2026.2.0	2026.3.0
importlib_metadata	9.0.0	8.7.1
inspectorssmplugin	1.0.456-1	1.0.460-1
ipython	9.11.0	9.12.0
jsonpointer	3.1.0	3.1.1
marshmallow	4.2.2	4.2.3
narwhals	2.18.0	2.18.1
nh3	0.3.3	0.3.4
nltk	3.9.3	3.9.4
pipdeptree	2.32.0	2.34.0
pipenv	2026.2.1	2026.2.2

Package Name	Previous Version	New Version
platformdirs	4.9.4	4.4.0
python-discovery	1.2.0	1.2.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0
starlette	0.52.1	1.0.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64
kernel_version	6.12.73-95.123.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.2

nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
boto3	1.42.68	1.42.73
botocore	1.42.68	1.42.73

Package Name	Previous Version	New Version
charset-normalizer	3.4.5	3.4.6
dask	2026.1.2	2026.3.0
importlib_metadata	8.7.1	9.0.0
inspectorssmplugin	1.0.443-1	1.0.456-1
jaraco.context	6.1.1	6.1.0
jsonpointer	3.0.0	3.1.0
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.1.0	2026.2.1
pyOpenSSL	25.3.0	26.0.0
python-discovery	1.1.3	1.2.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64
kernel_version	6.12.73-95.123.amzn2023.aarch64

python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.73-95.123-1.0-0.amzn2023
```

lazy-loader-0.5
python-discovery-1.1.0

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-linux-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
black	26.1.0	26.3.0
boto3	1.42.54	1.42.63
botocore	1.42.54	1.42.63
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
container-selinux	2.242.0-1.amzn2023	2.245.0-1.amzn2023
dnf-plugin-support-info	1.10-1.amzn2023	1.11-1.amzn2023
ec2-hibinit-agent	1.0.10-1.amzn2023	1.0.10-2.amzn2023
fastapi	0.132.0	0.135.1
filelock	3.24.3	3.25.0
ipython	9.10.0	9.11.0
isort	8.0.0	8.0.1

Package Name	Previous Version	New Version
jxl-pixbuf-loader	0.10.3-54.amzn2023	0.10.3-55.amzn2023
kernel-livepatch-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
kernel6.12	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-devel	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-headers	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-libbpf	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-modules-extra	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-modules-extra-common	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-tools	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
libjxl	0.10.3-54.amzn2023	0.10.3-55.amzn2023
libpng	1.6.37-10.amzn2023.0.10	1.6.37-10.amzn2023.0.11
libsoup3	3.6.5-55.amzn2023	3.6.5-56.amzn2023
libssh	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-config	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4

Package Name	Previous Version	New Version
libssh-devel	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libxml2	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
libxml2-devel	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
lustre-client	2.15.6-25.amzn2023	2.15.6-27.amzn2023
nltk	3.9.2	3.9.3
platformdirs	4.9.2	4.4.0
plotly	6.5.2	6.6.0
redis	7.2.0	7.3.0
regex	2026.2.19	2026.2.28
selinux-policy	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
selinux-policy-targeted	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
shap	0.50.0	0.51.0
system-release	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
systemtap	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-client	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-runtime	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1

Package Name	Previous Version	New Version
systemtap-sdt-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-dtrace	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
tifffile	2026.2.20	2026.3.3
virtualenv	20.39.0	21.1.0
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-6.12.68-92.122
lazy_loader

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260223

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
fastapi	0.129.0	0.132.0

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.441-1	1.0.443-1
jupyterlab	4.5.4	4.5.5
narwhals	2.16.0	2.17.0
platformdirs	4.4.0	4.9.2
scipy	1.17.0	1.17.1
typer	0.24.0	0.24.1
virtualenv	20.38.0	20.39.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	aarch64
kernel_version	6.12.64-87.122.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0

Package Name	Previous Version	New Version
boto3	1.42.35	1.42.39
botocore	1.42.35	1.42.39
cryptography	46.0.3	46.0.4
dask	2026.1.1	2026.1.2
datacenter-gpu-manager-4-core	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-cuda13	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.0-1	4.5.1-1
debugpy	1.8.19	1.8.20
inspectorssmplugin	1.0.434-1	1.0.437-1
nbconvert	7.16.6	7.17.0
pathspec	1.0.3	1.0.4
psutil	7.2.1	7.2.2
pytokens	0.4.0	0.4.1
tifffile	2026.1.14	2026.1.28
wcwidth	0.4.0	0.5.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
black	25.12.0	26.1.0
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
importlib_metadata	8.0.0	8.7.1
jaraco.functools	4.0.1	4.4.0
libnvidia-nscq	580.105.08-1	580.126.09-1
numpy	2.2.6	2.3.5
nvidia-imex	580.105.08-1	580.126.09-1
opencv-python	4.12.0.88	4.13.0.90

Package Name	Previous Version	New Version
packaging	25.0	24.2
platformdirs	4.5.1	4.2.2
pytokens	0.3.0	0.4.0
soupsieve	2.8.1	2.8.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1

dcgm_version	4.5.0
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
dask	2025.12.0	2026.1.1
importlib_metadata	8.7.1	8.0.0

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.432-1	1.0.434-1
jaraco.context	5.3.0	6.1.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
librt	0.7.7	0.7.8
plotly	6.5.1	6.5.2
prometheus_client	0.23.1	0.24.1
regex	2025.11.3	2026.1.15
scipy	1.16.3	1.17.0
tifffile	2025.12.20	2026.1.14
tomlkit	0.13.3	0.14.0
typing_extensions	4.15.0	4.12.2
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300

operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.18	1.42.20
botocore	1.42.18	1.42.20
filelock	3.20.1	3.20.2
jaraco.functools	4.0.1	4.4.0
json5	0.12.1	0.13.0
librt	0.7.5	0.7.7
more-itertools	10.3.0	10.8.0
packaging	25.0	24.2
pillow	12.0.0	12.1.0
platformdirs	4.5.1	4.2.2
ruamel.yaml	0.18.17	0.19.1

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.17	1.42.18
botocore	1.42.17	1.42.18
celery	5.6.0	5.6.1
fastapi	0.127.1	0.128.0
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.430-1	1.0.431-1
jaraco.functools	4.0.1	4.4.0
kombu	5.6.1	5.6.2
more-itertools	10.8.0	10.3.0
packaging	24.2	25.0
platformdirs	4.5.1	4.2.2

Package Name	Previous Version	New Version
psutil	7.2.0	7.2.1
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
exceptiongroup

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251209

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1

dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

ipython_pygments_lexers-1.1.1
mpdecimal-2.5.1-3.amzn2023.0.3
pyproject-rpm-macros-1.3.2-1.amzn2023.0.2
python-rpm-macros-3.9-41.amzn2023.0.6
python3-packaging-21.3-2.amzn2023.0.2
python3-rpm-generators-12-15.amzn2023.0.5
python3-rpm-macros-3.9-41.amzn2023.0.6
python3.12-3.12.12-2.amzn2023

python3.12-devel-3.12.12-2.amzn2023
python3.12-libs-3.12.12-2.amzn2023
python3.12-pip-23.2.1-4.amzn2023.0.5
python3.12-pip-wheel-23.2.1-4.amzn2023.0.5
python3.12-setuptools-68.2.2-4.amzn2023.0.3

Updated Packages

Package Name	Previous Version	New Version
SecretStorage	3.3.3	3.5.0
astroid	3.3.11	4.0.2
black	25.11.0	25.12.0
bleach	6.2.0	6.3.0
bokeh	3.4.3	3.8.1
boto3	1.42.1	1.42.5
botocore	1.42.1	1.42.5
click	8.1.8	8.3.1
contourpy	1.3.0	1.3.3
dask	2024.8.0	2025.11.0
fastapi	0.123.4	0.124.0
filelock	3.19.1	3.20.0
fonttools	4.60.1	4.61.0

Package Name	Previous Version	New Version
fsspec	2025.10.0	2025.12.0
greenlet	3.2.4	3.3.0
iniconfig	2.1.0	2.3.0
inspectorssmplugin	1.0.419-1	1.0.423-1
ipython	8.18.1	9.8.0
isort	6.1.0	7.0.0
jaraco.functools	4.3.0	4.0.1
jupyter_core	5.8.1	5.9.1
kiwisolver	1.4.7	1.4.9
librt	0.6.3	0.7.3
llvmlite	0.43.0	0.45.1
markdown-it-py	3.0.0	4.0.0
marshmallow	4.0.1	4.1.1
matplotlib	3.9.4	3.10.7
more-itertools	10.8.0	10.3.0
networkx	3.2.1	3.6.1
numba	0.60.0	0.62.1
numpy	2.0.2	2.2.6
nvidia-ml-py	13.580.82	13.590.44
pillow	11.3.0	12.0.0

Package Name	Previous Version	New Version
pipdeptree	2.28.0	2.30.0
pipenv	2025.0.4	2025.1.1
platformdirs	4.4.0	4.2.2
pylint	3.3.9	4.0.4
pytest	8.4.2	9.0.2
redis	7.0.1	7.1.0
referencing	0.36.2	0.37.0
rpds-py	0.27.1	0.30.0
scikit-image	0.24.0	0.25.2
scikit-learn	1.6.1	1.7.2
scipy	1.13.1	1.16.3
shap	0.49.1	0.50.0
starlette	0.49.3	0.50.0
tifffile	2024.8.30	2025.10.16
urllib3	1.26.20	2.6.1
webcolors	24.11.1	25.10.0
zipp	3.23.0	3.19.2
zope.interface	8.0.1	8.1.1

Removed Packages

Package Name
async-timeout
backports-datetime-fromisoformat
importlib_resources
overrides

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251202

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
python_location	/usr/bin/python3.9
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1

dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

Incremental-24.11.0
librt-0.6.3
tzlocal-5.3.1

Updated Packages

Package Name	Previous Version	New Version
Cython	3.2.1	3.2.2
Werkzeug	3.1.3	3.1.4

Package Name	Previous Version	New Version
anyio	4.11.0	4.12.0
beautifulsoup4	4.14.2	4.14.3
billiard	4.2.3	4.2.4
boto3	1.41.2	1.42.1
botocore	1.41.2	1.42.1
celery	5.5.3	5.6.0
exceptiongroup	1.3.0	1.3.1
fastapi	0.121.3	0.123.4
gdrcopy	2.5-1	2.5.1-1
gdrcopy-devel	2.5-1	2.5.1-1
gdrcopy-kmod	2.5-1dkms	2.5.1-1dkms
ibacm	58.amzn0-1.amzn2023	60.0-1.amzn2023
infiniband-diags	58.amzn0-1.amzn2023	60.0-1.amzn2023
infiniband-diags-compat	58.amzn0-1.amzn2023	60.0-1.amzn2023
jaraco.functools	4.3.0	4.0.1
kombu	5.5.4	5.6.1
libfabric-aws	2.1.0amzn5.0-1.amzn2023	2.3.1amzn3.0-1.amzn2023
libfabric-aws-devel	2.1.0amzn5.0-1.amzn2023	2.3.1amzn3.0-1.amzn2023

Package Name	Previous Version	New Version
libibumad	58.amzn0-1.amzn2023	60.0-1.amzn2023
libibverbs	58.amzn0-1.amzn2023	60.0-1.amzn2023
libibverbs-utils	58.amzn0-1.amzn2023	60.0-1.amzn2023
libnccl-ofi	1.16.3-1.amzn2023	1.17.2-1.amzn2023
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
librdmacm	58.amzn0-1.amzn2023	60.0-1.amzn2023
librdmacm-utils	58.amzn0-1.amzn2023	60.0-1.amzn2023
mypy	1.18.2	1.19.0
narwhals	2.12.0	2.13.0
nvidia-container-toolkit	1.18.0-1	1.18.1-1
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
openmpi50-aws	5.0.6-11	5.0.8amzn1-11
packaging	25.0	24.2
platformdirs	4.4.0	4.2.2
python3-pyverbs	58.amzn0-1.amzn2023	60.0-1.amzn2023
rdma-core	58.amzn0-1.amzn2023	60.0-1.amzn2023
rdma-core-devel	58.amzn0-1.amzn2023	60.0-1.amzn2023

Package Name	Previous Version	New Version
s3transfer	0.15.0	0.16.0
xyzservices	2025.10.0	2025.11.0

Removed Packages

Package Name
datacenter-gpu-manager-4-cuda12
datacenter-gpu-manager-4-proprietary-cuda12
incremental
sniffio

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
python_location	/usr/bin/python3.9
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023

Package Name	Previous Version	New Version
asttokens	3.0.0	3.0.1
billiard	4.2.2	4.2.3
boto3	1.40.74	1.41.2
botocore	1.40.74	1.41.2
fastapi	0.121.2	0.121.3
inspectorssmplugin	1.0.412-1	1.0.419-1
jupyterlab	4.4.10	4.5.0
kernel-livepatch-repo-s3	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
keyring	25.6.0	25.7.0
narwhals	2.11.0	2.12.0
packaging	25.0	24.2
platformdirs	4.4.0	4.2.2
plotly	6.4.0	6.5.0
ruamel.yaml.clib	0.2.14	0.2.15
s3transfer	0.14.0	0.15.0
system-release	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
typing_extensions	4.15.0	4.12.2
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251101

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.9
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.3050.0
kernel_version	6.12.53-69.119.amzn2023.aarch64
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.9/

Package Name	Version
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

apr-util-lmdb-1.6.3-1.amzn2023.0.2
kernel-livepatch-6.12.53-69.119-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.13.1	3.13.2
amazon-linux-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
audit-libs	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2

Package Name	Previous Version	New Version
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.59	1.40.64
botocore	1.40.59	1.40.64
fastapi	0.120.0	0.120.4
fsspec	2025.9.0	2025.10.0
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
grub2-common	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-efi-aa64-ec2	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-pc-modules	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools-minimal	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
importlib_metadata	8.0.0	8.7.0
inspectorssmplugin	1.0.402-1	1.0.404-1

Package Name	Previous Version	New Version
jaraco.functools	4.3.0	4.0.1
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1
kernel-livepatch-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
kernel6.12	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-devel	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-headers	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-libbpf	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-modules-extra	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-modules-extra-common	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
kernel6.12-tools	6.12.46-66.121.amzn2023	6.12.53-69.119.amzn2023
lark	1.3.0	1.3.1
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023

Package Name	Previous Version	New Version
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
narwhals	2.9.0	2.10.1
nh3	0.3.1	0.3.2
packaging	24.2	25.0
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1
pip	25.2	25.3
psutil	7.1.1	7.1.2
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6

Package Name	Previous Version	New Version
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
redis	7.0.0	7.0.1
runc	1.3.1-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.48.0	0.49.2
system-release	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
tomli	2.3.0	2.0.1
typing_extensions	4.12.2	4.15.0
virtualenv	20.35.3	20.35.4
xyzservices	2025.4.0	2025.10.0

Removed Packages

Package Name
kernel-livepatch-6.12.46-66.121

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.9
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.3050.0
kernel_version	6.12.46-66.121.amzn2023.aarch64
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.12.15	3.13.0
attrs	25.3.0	25.4.0
boto3	1.40.45	1.40.49
botocore	1.40.45	1.40.49
cattrs	25.2.0	25.3.0
certifi	2025.8.3	2025.10.5
efa	2.17.2-1.amzn2023	2.17.3-1.amzn2023
fastapi	0.118.0	0.118.2
frozenlist	1.7.0	1.8.0
importlib_metadata	8.7.0	8.0.0
jaraco.context	5.3.0	6.0.1

Package Name	Previous Version	New Version
multidict	6.6.4	6.7.0
narwhals	2.6.0	2.7.0
nh3	0.3.0	0.3.1
propcache	0.3.2	0.4.1
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
pylint	3.3.8	3.3.9
python-json-logger	3.3.0	4.0.0
rich	14.1.0	14.2.0
tomli	2.2.1	2.0.1
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
virtualenv	20.34.0	20.35.1
websocket-client	1.8.0	1.9.0
yarl	1.20.1	1.22.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	aarch64
kernel_version	6.12.40-64.114.amzn2023.aarch64
python_location	/usr/bin/python3.9
nvidia_driver	580.82.07
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.2
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

datacenter-gpu-manager-4-cuda13-4.4.1-1
datacenter-gpu-manager-4-proprietary-cuda13-4.4.1-1
libnvidia-nscq-580.82.07-1
nvidia-imex-580.82.07-1

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
billiard	4.2.1	4.2.2
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
docutils	0.22.1	0.22.2
fastapi	0.116.2	0.117.1

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.396-1	1.0.398-1
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
libnccl-ofi	1.16.2-1.amzn2023	1.16.3-1.amzn2023
more-itertools	10.3.0	10.8.0
packaging	25.0	24.2
platformdirs	4.2.2	4.4.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.18.0	0.19.2
wcwidth	0.2.13	0.2.14
zipp	3.23.0	3.19.2
zope.interface	8.0	8.0.1

Removed Packages

Package Name
libnvidia-nscq-570

Package Name
nvidia-imex-570

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-09-26

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250926

Updated

- Upgraded Nvidia Driver from 570.172.08 to 580.82.07
- Upgraded EFA from 1.43.1 to 1.43.2

Added

- CUDA directory of 12.9 with compiled NCCL Version 2.28.3+CUDA12.9 and CuDNN 9.13.0
- CUDA directory of 13.0 with compiled NCCL Version 2.28.3+CUDA13.0 and CuDNN 9.13.0

Removed

- CUDA directory of 12.5 with compiled NCCL Version 2.22.3+CUDA12.5 and CuDNN 9.7.1.26
- CUDA directory of 12.6 with compiled NCCL Version 2.24.3+CUDA12.6 and CuDNN 9.7.1.26

Release Date: 2025-07-22

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250722

Updated

- Upgraded Nvidia Driver from 570.158.01 to 570.172.08 to fix CVE's present in the Nvidia Security Bulletin for July

Release Date: 2025-07-04

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250704

Updated

- Added support to EC2 instance P6e-GB200. Please note that CUDA>=12.8 is supported on P6e-GB200
- Add EFA 1.42.0
- Upgraded Nvidia driver from version 570.133.20 to 570.158.01
- Upgraded CUDA 12.8 stack with NCCL 2.27.5

Release Date: 2025-04-24

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250424

Updated

- Upgraded Nvidia driver from version 570.86.15 to 570.133.20 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for April 2025
- Updated CUDA12.8 stack with NCCL 2.26.2
- Updated default CUDA from 12.6 to 12.8

Release Date: 2025-04-22

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250421

Updated

- Upgraded Nvidia driver from version 570.124.06 to 570.133.20 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for April 2025

Release Date: 2025-04-04

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250404

Updated

- Kernel version updated from 6.1 to 6.12

Release Date: 2025-03-03

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250303

Updated

- Nvidia driver from 550.144.03 to 570.86.15
- Default CUDA is changed from CUDA12.4 to CUDA12.6

Added

- CUDA directory of 12.5 with compiled NCCL Version 2.22.3+CUDA12.5 and CuDNN 9.7.1.26
- CUDA directory of 12.6 with compiled NCCL Version 2.24.3+CUDA12.6 and CuDNN 9.7.1.26
- CUDA directory of 12.8 with compiled NCCL Version 2.25.1+CUDA12.8 and CuDNN 9.7.1.26

Release Date: 2025-02-14

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2023) 20250214

Added

- Initial release of the Deep Learning ARM64 Base OSS DLAMI for Amazon Linux 2023

AWS Deep Learning ARM64 Base GPU AMI (Ubuntu 24.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-oss-nvidia-driver-gpu-ubuntu-24.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu
 24.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260327
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260320
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260318

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260306
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260225
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260206
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260130
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260123
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260121
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260116
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260102
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251230
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251205
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251202
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251121
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251107
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251010
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250926

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1009-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7

Package Name	Previous Version	New Version
anyio	4.12.1	4.13.0
bind9-dnsutils	9.18.39-0ubuntu0.24.04.2	9.18.39-0ubuntu0.24.04.3
bind9-host	9.18.39-0ubuntu0.24.04.2	9.18.39-0ubuntu0.24.04.3
bind9-libs	9.18.39-0ubuntu0.24.04.2	9.18.39-0ubuntu0.24.04.3
boto3	1.42.72	1.42.77
botocore	1.42.72	1.42.77
build	1.4.0	1.4.2
celery	5.6.2	5.6.3
coreutils	9.4-3ubuntu6.1	9.4-3ubuntu6.2
cryptography	46.0.5	46.0.6
devscripts	2.23.7ubuntu0.1	2.23.7ubuntu0.2
docker-ce-cli	29.3.0-1~ubuntu.24.04~noble	29.3.1-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.3.0-1~ubuntu.24.04~noble	29.3.1-1~ubuntu.24.04~noble
docker-compose-plugin	5.1.0-1~ubuntu.24.04~noble	5.1.1-1~ubuntu.24.04~noble
fastapi	0.135.1	0.135.2
inspectorssmplugin	1.0.455	1.0.459
jaraco.context	6.1.1	6.1.0

Package Name	Previous Version	New Version
jsonpointer	3.0.0	3.1.1
libnss-systemd	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libpam-systemd	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libsystemd-shared	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libsystemd0	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libtiff6	4.5.1+git230720-4ubuntu2.4	4.5.1+git230720-4ubuntu2.5
libudev-dev	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libudev1	255.4-1ubuntu8.12	255.4-1ubuntu8.14
libxnvctrl0	595.45.04-1ubuntu1	595.58.03-1ubuntu1
narwhals	2.18.0	2.18.1
nh3	0.3.3	0.3.4
pipdeptree	2.32.0	2.34.0
pipenv	2026.2.1	2026.2.2
platformdirs	4.9.4	4.4.0
protobuf	7.34.0	7.34.1
python-discovery	1.2.0	1.2.1
python3-openssl	23.2.0-1	23.2.0-1ubuntu0.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0
starlette	0.52.1	1.0.0

Package Name	Previous Version	New Version
systemd-dev	255.4-1ubuntu8.12	255.4-1ubuntu8.14
systemd-resolved	255.4-1ubuntu8.12	255.4-1ubuntu8.14
systemd-sysv	255.4-1ubuntu8.12	255.4-1ubuntu8.14
udev	255.4-1ubuntu8.12	255.4-1ubuntu8.14

Removed Packages

Package Name
linux-aws-6.17-headers-6.17.0-1007
linux-aws-6.17-tools-6.17.0-1007
linux-headers-6.17.0-1007-aws
linux-image-6.17.0-1007-aws
linux-modules-6.17.0-1007-aws
linux-tools-6.17.0-1007-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1009-aws

python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
boto3	1.42.70	1.42.72
botocore	1.42.70	1.42.72
jaraco.context	6.1.0	6.1.1
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.1.0	2026.2.1
python-discovery	1.1.3	1.2.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260318

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1009-aws
python_location	/usr/bin/python3.12

nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

Automat-25.4.16
Cython-3.2.4

```
Flask-3.1.3
ImageIO-2.37.3
Incremental-24.11.0
Jinja2-3.1.6
MarkupSafe-3.0.3
PyJWT-2.12.1
PyYAML-6.0.3
Pygments-2.19.2
SQLAlchemy-2.0.48
SecretStorage-3.5.0
Send2Trash-2.1.0
Twisted-25.5.0
Werkzeug-3.1.6
aiohappyeyeballs-2.6.1
aiohttp-3.13.3
aiosignal-1.4.0
amqp-5.3.1
annotated-doc-0.0.4
annotated-types-0.7.0
anyio-4.12.1
argon2-cffi-25.1.0
```

argon2-cffi-bindings-25.1.0

arrow-1.4.0

astroid-4.0.4

asttokens-3.0.1

async-lru-2.2.0

attrs-25.4.0

autocommand-2.2.2

babel-2.18.0

backports.tarfile-1.2.0

beautifulsoup4-4.14.3

billiard-4.2.4

black-26.3.1

bleach-6.3.0

blinker-1.9.0

bokeh-3.9.0

boto-2.49.0

boto3-1.42.70

botocore-1.42.70

build-1.4.0

cattrs-26.1.0

celery-5.6.2

certifi-2026.2.25

cffi-2.0.0

charset-normalizer-3.4.6

click-8.3.1

click-didyoumean-0.3.1

click-plugins-1.1.1.2

click-repl-0.3.0

cloudpickle-3.1.2

comm-0.2.3

configobj-5.0.9

constantly-23.10.4

contourpy-1.3.3

coremltools-9.0

cpplint-2.0.2

cryptography-46.0.5

cycler-0.12.1

dask-2026.3.0

debugpy-1.8.20

decorator-5.2.1

defusedxml-0.7.1

dill-0.4.1

distlib-0.4.0

docutils-0.22.4

entrypoints-0.4

environment-kernels-1.2.0

executing-2.2.1

fastapi-0.135.1

fastjsonschema-2.21.2

filelock-3.25.2

fonttools-4.62.1

fqdn-1.5.1

frozenlist-1.8.0

fsspec-2026.2.0

future-1.0.0

graphviz-0.21

greenlet-3.3.2

h11-0.16.0

html5lib-1.1

httpcore-1.0.9

httpx-0.28.1

hyperlink-21.0.0

id-1.6.1

idna-3.11

importlib_metadata-8.7.1

iniconfig-2.3.0

ipykernel-6.29.5

ipython-9.11.0

ipython-genutils-0.2.0

ipython_pygments_lexers-1.1.1

ipywidgets-8.1.8

isoduration-20.11.0

isort-8.0.1

itsdangerous-2.2.0

jaraco.classes-3.4.0

jaraco.context-6.1.1

jaraco.functools-4.4.0

jaraco.text-4.0.0

jeepney-0.9.0

jmespath-1.1.0

joblib-1.5.3

json5-0.13.0

jsonpointer-3.0.0

jsonschema-4.26.0

jsonschema-specifications-2025.9.1

jupyter-1.1.1

jupyter-console-6.6.3

jupyter-events-0.12.0

jupyter-lsp-2.3.0

jupyter_client-7.4.9

jupyter_core-5.9.1

jupyter_server-2.17.0

jupyter_server_terminals-0.5.4

jupyterlab-4.5.6

jupyterlab_pygments-0.3.0

jupyterlab_server-2.28.0

jupyterlab_widgets-3.0.16

keyring-25.7.0

kiwisolver-1.5.0

kombu-5.6.2

lark-1.3.1

lazy-loader-0.5

librt-0.8.1

linux-aws-6.17-headers-6.17.0-1009-6.17.0-1009.9~24.04.2

linux-aws-6.17-tools-6.17.0-1009-6.17.0-1009.9~24.04.2

linux-headers-6.17.0-1009-aws-6.17.0-1009.9~24.04.2

linux-image-6.17.0-1009-aws-6.17.0-1009.9~24.04.2

linux-modules-6.17.0-1009-aws-6.17.0-1009.9~24.04.2

linux-tools-6.17.0-1009-aws-6.17.0-1009.9~24.04.2

llvmlite-0.46.0

locket-1.0.0

lustre-client-modules-6.17.0-1009-aws-2.15.6-1fsx28

markdown-it-py-4.0.0

matplotlib-3.10.8

matplotlib-inline-0.2.1

mccabe-0.7.0

mdurl-0.1.2

mistune-3.2.0

more-itertools-10.8.0

mpmath-1.3.0

multidict-6.7.1

mypy-1.19.1

mypy_extensions-1.1.0

narwhals-2.18.0

nbclassic-1.3.3

nbclient-0.10.4

nbconvert-7.17.0

nbformat-5.10.4

nest-asyncio-1.6.0

networkx-3.6.1

nh3-0.3.3

notebook-6.5.7

notebook_shim-0.2.4

numba-0.64.0

numpy-2.4.3

nvidia-ml-py-13.590.48

opencv-python-4.13.0.92

packaging-26.0

pandas-3.0.1

pandocfilters-1.5.1

parso-0.8.6

partd-1.4.2

pathspec-1.0.4

pexpect-4.9.0

pillow-12.1.1

pip-26.0.1

pip-tools-7.5.3

pipdeptree-2.31.0

pipenv-2026.1.0

platformdirs-4.9.4

plotly-6.6.0

pluggy-1.6.0

prometheus_client-0.24.1

prompt_toolkit-3.0.52

propcache-0.4.1

protobuf-7.34.0

psutil-7.2.2

psycopg2-binary-2.9.11

ptyprocess-0.7.0

pure_eval-0.2.3

pyOpenSSL-26.0.0

pyaml-26.2.1

pycparser-3.0

pydantic-2.12.5

pydantic_core-2.41.5

pygal-3.1.0

pylint-4.0.5

pyparsing-3.3.2

pyproject_hooks-1.2.0

pytest-9.0.2

python-dateutil-2.9.0.post0

python-discovery-1.1.3

python-json-logger-4.0.0

pytokens-0.4.1

pyzmq-27.1.0

readme_renderer-44.0

redis-7.3.0

referencing-0.37.0

requests-2.32.5

requests-toolbelt-1.0.0

rfc3339-validator-0.1.4

rfc3986-2.0.0

rfc3986-validator-0.1.1

rfc3987-syntax-1.1.0

rich-14.3.3

rpds-py-0.30.0

s3transfer-0.16.0

scikit-image-0.26.0

scikit-learn-1.8.0

scipy-1.17.1

seaborn-0.13.2

setuptools-82.0.1

shap-0.51.0

six-1.17.0

slicer-0.0.8

soupsieve-2.8.3

stack-data-0.6.3

starlette-0.52.1

sympy-1.14.0

terminado-0.18.1

threadpoolctl-3.6.0

tifffile-2026.3.3

tinycss2-1.4.0

tomli-2.4.0

tomlkit-0.14.0

toolz-1.1.0

tornado-6.5.5

tqdm-4.67.3

traitlets-5.14.3

twine-6.2.0

typing-inspection-0.4.2

typing_extensions-4.15.0

tzdata-2025.3

tzlocal-5.3.1

uri-template-1.3.0

urllib3-2.6.3

vine-5.1.0

virtualenv-21.2.0

wcwidth-0.6.0

webcolors-25.10.0

webencodings-0.5.1

websocket-client-1.9.0

wheel-0.46.3

widgetsnbextension-4.0.15

xyzservices-2025.11.0

yapf-0.43.0

yarl-1.23.0

zipp-3.23.0

zope.interface-8.2

Updated Packages

Package Name	Previous Version	New Version
binutils-aarch64-linux-gnu	2.42-4ubuntu2.8	2.42-4ubuntu2.10
binutils-common	2.42-4ubuntu2.8	2.42-4ubuntu2.10
bsdextrautils	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
bsdutils	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
containerd.io	2.2.1-1~ubuntu.24.04~noble	2.2.2-1~ubuntu.24.04~noble
eject	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
fdisk	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
gdrcopy-tests	2.5.1	2.5.2
gdrdrv-dkms	2.5.1	2.5.2
inspectorssmplugin	1.0.443	1.0.455
libbinutils	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libblkid-dev	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libblkid1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libctf-nobfd0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libcurl3t64-gnutls	8.5.0-2ubuntu10.7	8.5.0-2ubuntu10.8
libcurl4t64	8.5.0-2ubuntu10.7	8.5.0-2ubuntu10.8
libfdisk1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5

Package Name	Previous Version	New Version
libfreetype-dev	2.13.2+dfsg-1build3	2.13.2+dfsg-1ubuntu0.1
libfreetype6	2.13.2+dfsg-1build3	2.13.2+dfsg-1ubuntu0.1
libgdrapi	2.5.1	2.5.2
libgprofng0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libmount-dev	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libmount1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libnftables1	1.0.9-1build1	1.0.9-1ubuntu0.1
libnvidia-container-tools	1.18.2-1	1.19.0-1
libnvidia-container1	1.18.2-1	1.19.0-1
libpython3.12-dev	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
libpython3.12-minimal	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
libpython3.12-stdlib	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
libpython3.12t64	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
libsframe1	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libsmartcols1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libssh-4	0.10.6-2ubuntu0.3	0.10.6-2ubuntu0.4
libuuid1	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
libxnvctrl0	590.48.01-0ubuntu1	595.45.04-1ubuntu1

Package Name	Previous Version	New Version
linux-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
linux-headers-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
linux-image-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
linux-libc-dev	6.8.0-101.101	6.8.0-106.106
linux-tools-common	6.8.0-101.101	6.8.0-106.106
mount	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
nvidia-container-toolkit-base	1.18.2-1	1.19.0-1
openssh-client	9.6p1-3ubuntu13.14	9.6p1-3ubuntu13.15
openssh-server	9.6p1-3ubuntu13.14	9.6p1-3ubuntu13.15
openssh-sftp-server	9.6p1-3ubuntu13.14	9.6p1-3ubuntu13.15
python3-cryptography	41.0.7-4ubuntu0.1	41.0.7-4ubuntu0.4
python3.12-dev	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
python3.12-minimal	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
python3.12-venv	3.12.3-1ubuntu0.11	3.12.3-1ubuntu0.12
snapd	2.73+ubuntu24.04	2.73+ubuntu24.04.2
sudo	1.9.15p5-3ubuntu5.24.04.1	1.9.15p5-3ubuntu5.24.04.2
uuid-dev	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5

Package Name	Previous Version	New Version
uuid-runtime	2.39.3-9ubuntu6.4	2.39.3-9ubuntu6.5
vim-common	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-runtime	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-tiny	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
xxd	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10

Removed Packages

Package Name
lustre-client-modules-6.17.0-1007-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1007-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-ce-cli	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble

Package Name	Previous Version	New Version
docker-ce-rootless-extras	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
libnss3	3.98-1build1	3.98-1ubuntu0.1
linux-base	4.5ubuntu9+24.04.1	4.5ubuntu9+24.04.2
sosreport	4.9.2-0ubuntu0~24.04.1	4.10.2-0ubuntu0~24.04.1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260225

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1007-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0

nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.17-headers-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-aws-6.17-tools-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-headers-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-image-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-tools-6.17.0-1007-aws-6.17.0-1007.7~24.04.1

```
lustre-client-modules-6.17.0-1007-aws-2.15.6-1fsx28
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
cloud-init	25.2-0ubuntu1~24.04.1	25.3-0ubuntu1~24.04.1
cpp-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
cpp-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
docker-compose-plugin	5.0.2-1~ubuntu.24.04~noble	5.1.0-1~ubuntu.24.04~noble
g++-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
g++-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-base	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-14-base	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
gfortran-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1

Package Name	Previous Version	New Version
gfortran-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
inspectorssmplugin	1.0.440	1.0.443
libasan8	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libatomic1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcc1-0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcurl3t64-gnutls	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libcurl4t64	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libexpat1	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libexpat1-dev	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libgcc-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgcc-s1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgfortran-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgfortran5	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgnutls30t64	3.8.3-1.1ubuntu3.4	3.8.3-1.1ubuntu3.5
libgomp1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1

Package Name	Previous Version	New Version
libhwasan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libitm1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
liblsan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libssh-4	0.10.6-2ubuntu0.2	0.10.6-2ubuntu0.3
libstdc++-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libstdc++6	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libtsan2	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libubsan1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
linux-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-headers-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-image-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-libc-dev	6.8.0-100.100	6.8.0-101.101
linux-tools-common	6.8.0-100.100	6.8.0-101.101
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28

Package Name	Previous Version	New Version
python3-software-properties	0.99.49.3	0.99.49.4
software-properties-common	0.99.49.3	0.99.49.4
systemd-hwe-hwdb	255.1.6	255.1.7

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1018
linux-aws-6.14-tools-6.14.0-1018
linux-headers-6.14.0-1018-aws
linux-image-6.14.0-1018-aws
linux-modules-6.14.0-1018-aws
linux-tools-6.14.0-1018-aws
lustre-client-modules-6.14.0-1018-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64

kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300063.0b1323-1	1.300064.0b1337-1
datacenter-gpu-manager-4-core	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda13	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.1-1	4.5.2-1
devscripts	2.23.7	2.23.7ubuntu0.1
docker-ce-cli	29.2.0-1~ubuntu.24.04~noble	29.2.1-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.2.0-1~ubuntu.24.04~noble	29.2.1-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
inetutils-telnet	2.5-3ubuntu4	2.5-3ubuntu4.1
inspectorssmplugin	1.0.436	1.0.438
libc-bin	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc-dev-bin	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc-devtools	2.39-0ubuntu8.6	2.39-0ubuntu8.7

Package Name	Previous Version	New Version
libc6	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc6-dev	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libdrm-common	2.4.122-1~ubuntu0.24.04.2	2.4.125-1ubuntu0.1~24.04.1
libdrm2	2.4.122-1~ubuntu0.24.04.2	2.4.125-1ubuntu0.1~24.04.1
libgirepository-2.0-0	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-0t64	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-bin	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-data	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-dev	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-dev-bin	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libldap-common	2.6.7+dfsg-1~exp1ubuntu8.2	2.6.10+dfsg-0ubuntu0.24.04.1
libldap2	2.6.7+dfsg-1~exp1ubuntu8.2	2.6.10+dfsg-0ubuntu0.24.04.1
libmysqlclient21	8.0.44-0ubuntu0.24.04.2	8.0.45-0ubuntu0.24.04.1
libpng-dev	1.6.43-5ubuntu0.3	1.6.43-5ubuntu0.4
libpng-tools	1.6.43-5ubuntu0.3	1.6.43-5ubuntu0.4
libpng16-16t64	1.6.43-5ubuntu0.3	1.6.43-5ubuntu0.4
libpython3.12-dev	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11

Package Name	Previous Version	New Version
libpython3.12-minimal	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libpython3.12-stdlib	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libpython3.12t64	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
linux-libc-dev	6.8.0-94.96	6.8.0-100.100
linux-tools-common	6.8.0-94.96	6.8.0-100.100
locales	2.39-0ubuntu8.6	2.39-0ubuntu8.7
python-apt-common	2.7.7ubuntu5.1	2.7.7ubuntu5.2
python3-apt	2.7.7ubuntu5.1	2.7.7ubuntu5.2
python3.12-dev	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
python3.12-minimal	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
python3.12-venv	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
telnet	2.5-3ubuntu4	2.5-3ubuntu4.1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS

compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
datacenter-gpu-manager-4-core	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-cuda13	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.0-1	4.5.1-1
docker-buildx-plugin	0.30.1-1~ubuntu.24.04~noble	0.31.1-1~ubuntu.24.04~noble
docker-ce-cli	29.1.5-1~ubuntu.24.04~noble	29.2.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.5-1~ubuntu.24.04~noble	29.2.0-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.434	1.0.436
libfwupd2	1.9.31-0ubuntu1~24.04.1	1.9.33-0ubuntu1~24.04.1ubuntu1
libnuma1	2.0.18-1build1	2.0.18-1ubuntu0.24.04.1
libnvidia-container-tools	1.18.1-1	1.18.2-1

Package Name	Previous Version	New Version
libnvidia-container1	1.18.1-1	1.18.2-1
libssl-dev	3.0.13-0ubuntu3.6	3.0.13-0ubuntu3.7
libssl3t64	3.0.13-0ubuntu3.6	3.0.13-0ubuntu3.7
linux-libc-dev	6.8.0-90.91	6.8.0-94.96
linux-tools-common	6.8.0-90.91	6.8.0-94.96
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
python3-distupgrade	24.04.27	24.04.28
screen	4.9.1-1build1	4.9.1-1ubuntu1
ubuntu-release-upgrader-core	24.04.27	24.04.28

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12

nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-compose-plugin	5.0.1-1~ubuntu.24.04~noble	5.0.2-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libgirepository-2.0-0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-0t64	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-data	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libxml2	2.9.14+dfsg-1.3ubuntu3.6	2.9.14+dfsg-1.3ubuntu3.7
python3-pyasn1	0.4.8-4	0.4.8-4ubuntu0.1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS

compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-ce-cli	29.1.4-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.4-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.433	1.0.434
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
kpartx	0.9.4-5ubuntu8	0.9.4-5ubuntu8.1
nvidia-imex	580.105.08-1	580.126.09-1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws

python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-ce-cli	29.1.3-1~ubuntu.24.04~noble	29.1.4-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.3-1~ubuntu.24.04~noble	29.1.4-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.432	1.0.433
klibc-utils	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libheif-plugin-aomdec	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif-plugin-aomenc	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif-plugin-libde265	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif1	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libklibc	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libpng-dev	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpng-tools	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpng16-16t64	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpython3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-stdlib	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12t64	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10

Package Name	Previous Version	New Version
libtasn1-6	4.19.0-3ubuntu0.24.04.1	4.19.0-3ubuntu0.24.04.2
python3-urllib3	2.0.7-1ubuntu0.3	2.0.7-1ubuntu0.6
python3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-venv	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0

nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.430	1.0.431

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1017-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/

nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.1-1~ubuntu.24.04~noble	29.1.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.1-1~ubuntu.24.04~noble	29.1.2-1~ubuntu.24.04~noble
docker-compose-plugin	2.40.3-1~ubuntu.24.04~noble	5.0.0-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libgirepository-2.0-0	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-0t64	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-bin	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-data	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-dev	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-dev-bin	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libmysqlclient21	8.0.44-0ubuntu0.24.04.1	8.0.44-0ubuntu0.24.04.2
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1015
linux-aws-6.14-tools-6.14.0-1015
linux-headers-6.14.0-1015-aws
linux-image-6.14.0-1015-aws
linux-modules-6.14.0-1015-aws
linux-tools-6.14.0-1015-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251202

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1017-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
binutils-aarch64-linux-gnu	2.42-4ubuntu2.6	2.42-4ubuntu2.7
binutils-common	2.42-4ubuntu2.6	2.42-4ubuntu2.7

Package Name	Previous Version	New Version
containerd.io	2.1.5-1~ubuntu.24.04~noble	2.2.0-2~ubuntu.24.04~noble
docker-buildx-plugin	0.30.0-1~ubuntu.24.04~noble	0.30.1-1~ubuntu.24.04~noble
docker-ce-cli	29.0.2-1~ubuntu.24.04~noble	29.1.1-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.0.2-1~ubuntu.24.04~noble	29.1.1-1~ubuntu.24.04~noble
gdrcopy	2.5-1	2.5.1
gdrcopy-tests	2.5-1	2.5.1
gdrdrv-dkms	2.5-1	2.5.1
gir1.2-packagekitglib-1.0	1.2.8-2ubuntu1.2	1.2.8-2ubuntu1.4
ibacm	58.amzn0-1	60.0-1
ibverbs-providers	58.amzn0-1	60.0-1
ibverbs-utils	58.amzn0-1	60.0-1
infiniband-diags	58.amzn0-1	60.0-1
inspectorssmplugin	1.0.418	1.0.419
libbinutils	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libctf-nobfd0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libctf0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libfabric-aws-bin	2.1.0amzn5.0	2.3.1amzn3.0

Package Name	Previous Version	New Version
libfabric-aws-dev	2.1.0amzn5.0	2.3.1amzn3.0
libfabric1-aws	2.1.0amzn5.0	2.3.1amzn3.0
libgdrapi	2.5-1	2.5.1
libgprofng0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libibmad-dev	58.amzn0-1	60.0-1
libibmad5	58.amzn0-1	60.0-1
libibnetdisc-dev	58.amzn0-1	60.0-1
libibnetdisc5	58.amzn0-1	60.0-1
libibumad-dev	58.amzn0-1	60.0-1
libibumad3	58.amzn0-1	60.0-1
libibverbs-dev	58.amzn0-1	60.0-1
libibverbs1	58.amzn0-1	60.0-1
libnccl-ofi	1.16.3-1	1.17.2-1
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
libpackagekit-glib2-18	1.2.8-2ubuntu1.2	1.2.8-2ubuntu1.4
libpython3.12-dev	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
libpython3.12-minimal	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9

Package Name	Previous Version	New Version
libpython3.12-stdlib	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
libpython3.12t64	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
librdmacm-dev	58.amzn0-1	60.0-1
librdmacm1	58.amzn0-1	60.0-1
libsframe1	2.42-4ubuntu2.6	2.42-4ubuntu2.7
lustre-client-modules-6.14.0-1017-aws	2.15.6-1fsx24	2.15.6-1fsx25
lustre-client-utils	2.15.6-1fsx24	2.15.6-1fsx25
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
openmpi50-aws	5.0.6	5.0.8
packagekit-tools	1.2.8-2ubuntu1.2	1.2.8-2ubuntu1.4
python3.12-dev	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
python3.12-minimal	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
python3.12-venv	3.12.3-1ubuntu0.8	3.12.3-1ubuntu0.9
rdmacm-utils	58.amzn0-1	60.0-1
ubuntu-pro-client	36ubuntu0~24.04	37.1ubuntu0~24.04
ubuntu-pro-client-l10n	36ubuntu0~24.04	37.1ubuntu0~24.04

Removed Packages

Package Name
datacenter-gpu-manager-4-cuda12
datacenter-gpu-manager-4-proprietary-cuda12

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1017-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.2
efa_version	1.43.3

ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.14-headers-6.14.0-1017-6.14.0-1017.17~24.04.1
linux-aws-6.14-tools-6.14.0-1017-6.14.0-1017.17~24.04.1
linux-headers-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
linux-image-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
linux-modules-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
linux-tools-6.14.0-1017-aws-6.14.0-1017.17~24.04.1
lustre-client-modules-6.14.0-1017-aws-2.15.6-1fsx24

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300061.0b1289-1	1.300062.0b1304-1
docker-buildx-plugin	0.29.1-1~ubuntu.24.04~noble	0.30.0-1~ubuntu.24.04~noble
docker-ce-cli	29.0.0-1~ubuntu.24.04~noble	29.0.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.0.0-1~ubuntu.24.04~noble	29.0.2-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.411	1.0.418
libdrm-common	2.4.122-1~ubuntu0.24.04.1	2.4.122-1~ubuntu0.24.04.2
libdrm2	2.4.122-1~ubuntu0.24.04.1	2.4.122-1~ubuntu0.24.04.2
libmysqlclient21	8.0.43-0ubuntu0.24.04.2	8.0.44-0ubuntu0.24.04.1
linux-aws	6.14.0-1016.16~24.04.1	6.14.0-1017.17~24.04.1
linux-headers-aws	6.14.0-1016.16~24.04.1	6.14.0-1017.17~24.04.1
linux-image-aws	6.14.0-1016.16~24.04.1	6.14.0-1017.17~24.04.1
linux-libc-dev	6.8.0-87.88	6.8.0-88.89
linux-tools-common	6.8.0-87.88	6.8.0-88.89

Package Name	Previous Version	New Version
lustre-client-utils	2.15.6-1fsx22	2.15.6-1fsx24
nvidia-imex	580.95.05-1	580.105.08-1

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1016
linux-aws-6.14-tools-6.14.0-1016
linux-headers-6.14.0-1016-aws
linux-image-6.14.0-1016-aws
linux-modules-6.14.0-1016-aws
linux-tools-6.14.0-1016-aws
lustre-client-modules-6.14.0-1016-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme

Package Name	Version
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.12
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.2299.0
kernel_version	6.14.0-1016-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 24.04.3 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300060.0b1248-1	1.300061.0b1289-1
containerd.io	1.7.28-1~ubuntu.24.04~noble	1.7.29-1~ubuntu.24.04~noble
dkms	3.2.1-1ubuntu2	3.2.2-1ubuntu1
docker-ce-cli	28.5.1-1~ubuntu.24.04~noble	28.5.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	28.5.1-1~ubuntu.24.04~noble	28.5.2-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.402	1.0.410
libxnvctrl0	580.95.05-0ubuntu1	580.105.08-0ubuntu1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.12
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.2299.0
kernel_version	6.14.0-1014-aws
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 24.04.3 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
docker-buildx-plugin	0.29.0-0~ubuntu.24.04~noble	0.29.1-1~ubuntu.24.04~noble
docker-ce-cli	28.5.0-1~ubuntu.24.04~noble	28.5.1-1~ubuntu.24.04~noble
docker-ce-rootless-extras	28.5.0-1~ubuntu.24.04~noble	28.5.1-1~ubuntu.24.04~noble
docker-compose-plugin	2.39.4-0~ubuntu.24.04~noble	2.40.0-1~ubuntu.24.04~noble
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
inspectorssmplugin	1.0.398	1.0.399
libnss-systemd	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libpam-systemd	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libsystemd-shared	255.4-1ubuntu8.10	255.4-1ubuntu8.11

Package Name	Previous Version	New Version
libsystemd0	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libudev-dev	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libudev1	255.4-1ubuntu8.10	255.4-1ubuntu8.11
snapd	2.68.5+ubuntu24.04.1	2.71+ubuntu24.04
systemd-dev	255.4-1ubuntu8.10	255.4-1ubuntu8.11
systemd-resolved	255.4-1ubuntu8.10	255.4-1ubuntu8.11
systemd-sysv	255.4-1ubuntu8.10	255.4-1ubuntu8.11
udev	255.4-1ubuntu8.10	255.4-1ubuntu8.11

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1013-aws
python_location	/usr/bin/python3.12
nvidia_driver	580.82.07

Package Name	Version
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.2
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

datacenter-gpu-manager-4-cuda13-4.4.1-1
datacenter-gpu-manager-4-proprietary-cuda13-4.4.1-1

libnvidia-nscq-580.82.07-1
linux-aws-6.14-headers-6.14.0-1013-6.14.0-1013.13~24.04.1
linux-aws-6.14-tools-6.14.0-1013-6.14.0-1013.13~24.04.1
linux-headers-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-image-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-modules-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-tools-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
nvidia-imex-580.82.07-1

Updated Packages

Package Name	Previous Version	New Version
dpkg-dev	1.22.6ubuntu6.2	1.22.6ubuntu6.5
inspectorssmplugin	1.0.395	1.0.396
libc-bin	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc-dev-bin	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc-devtools	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc6	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc6-dev	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libdpkg-perl	1.22.6ubuntu6.2	1.22.6ubuntu6.5
libnccl-ofi	1.16.2-1	1.16.3-1
libpam-modules	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5

Package Name	Previous Version	New Version
libpam-modules-bin	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
libpam-runtime	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
libpam0g	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
linux-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-headers-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-image-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-libc-dev	6.8.0-83.83	6.8.0-84.84
linux-tools-common	6.8.0-83.83	6.8.0-84.84
locales	2.39-0ubuntu8.5	2.39-0ubuntu8.6
python3-pip	24.0+dfsg-1ubuntu1.2	24.0+dfsg-1ubuntu1.3
python3-pip-whl	24.0+dfsg-1ubuntu1.2	24.0+dfsg-1ubuntu1.3

Removed Packages

Package Name
libnvidia-nscq-570
linux-aws-6.14-headers-6.14.0-1012
linux-aws-6.14-tools-6.14.0-1012
linux-headers-6.14.0-1012-aws
linux-image-6.14.0-1012-aws

Package Name
linux-modules-6.14.0-1012-aws
linux-tools-6.14.0-1012-aws
nvidia-imex-570

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-09-26

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250926

Updated

- Upgraded Nvidia Driver from 570.172.08 to 580.82.07
- Upgraded EFA from 1.43.1 to 1.43.2

Added

- CUDA directory of 12.9 with compiled NCCL Version 2.28.3+CUDA12.9 and CuDNN 9.13.0
- CUDA directory of 13.0 with compiled NCCL Version 2.28.3+CUDA13.0 and CuDNN 9.13.0

Removed

- CUDA directory of 12.5 with compiled NCCL Version 2.22.3+CUDA12.5 and CuDNN 9.7.1.26

Release Date: 2025-08-21

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250820

Updated

- Added support to EC2 instance P6e-GB200. Please note that only CUDA>=12.8 is supported on P6e-GB200

Release Date: 2025-08-08

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) 20250806

Added

- Initial release of Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 24.04) series. Complimented with NVIDIA Driver R570, CUDA=12.8, NCCL=2.27.5. and EFA=1.43.1.

Known Issues

- Amazon FSx for Lustre support has been removed in this release due to incompatibility with the latest Ubuntu 24.04 kernel versions. NVIDIA GDS and FS are currently not supported on the latest Ubuntu 24.04 kernel versions. Support for FSx, GDS, and FS will be reinstated once the latest kernel version is supported.

AWS Deep Learning ARM64 Base GPU AMI (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-oss-nvidia-driver-gpu-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260327
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260320
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260306
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260220
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260206
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260130
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260123
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260121
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260119
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260106
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251230
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251205
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251202
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251031
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251010

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250927

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260327

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
anyio	4.12.1	4.13.0
awscli	1.44.63	1.44.67
bind9-dnsutils	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
bind9-host	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
bind9-libs	9.18.39-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.3
boto3	1.42.73	1.42.77
botocore	1.42.73	1.42.77
build	1.4.0	1.4.2

Package Name	Previous Version	New Version
celery	5.6.2	5.6.3
cryptography	46.0.5	46.0.6
docker-ce-cli	29.3.0-1~ubuntu.22.04~jammy	29.3.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.3.0-1~ubuntu.22.04~jammy	29.3.1-1~ubuntu.22.04~jammy
fastapi	0.135.1	0.135.2
inspectorssmplugin	1.0.456	1.0.459
ipython	8.38.0	8.39.0
jaraco.context	6.1.1	6.1.2
libnss-systemd	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libpam-systemd	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libsystemd0	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libtiff5	4.3.0-6ubuntu0.12	4.3.0-6ubuntu0.13
libudev-dev	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libudev1	249.11-0ubuntu3.17	249.11-0ubuntu3.19
libxnvctrl0	595.45.04-1ubuntu1	595.58.03-1ubuntu1
marshmallow	4.2.2	4.2.3
nh3	0.3.3	0.3.4
nltk	3.9.3	3.9.4
pipdeptree	2.32.0	2.34.0

Package Name	Previous Version	New Version
pipenv	2026.2.1	2026.2.2
python-discovery	1.2.0	1.2.1
python3-openssl	21.0.0-1	21.0.0-1ubuntu0.1
redis	7.3.0	7.4.0
requests	2.32.5	2.33.0
starlette	0.52.1	1.0.0
systemd-sysv	249.11-0ubuntu3.17	249.11-0ubuntu3.19
tomli	2.4.0	2.4.1
udev	249.11-0ubuntu3.17	249.11-0ubuntu3.19

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1050-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09

default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-aws-6.8-tools-6.8.0-1050-6.8.0-1050.53~22.04.1

linux-headers-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-image-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-modules-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-tools-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
lustre-client-modules-6.8.0-1050-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.12.0	2.12.1
attrs	25.4.0	26.1.0
awscli	1.44.57	1.44.63
boto3	1.42.67	1.42.73
botocore	1.42.67	1.42.73
charset-normalizer	3.4.5	3.4.6
coreutils	8.32-4.1ubuntu1.2	8.32-4.1ubuntu1.3
dask	2026.1.2	2026.3.0
devscripts	2.22.1ubuntu1	2.22.1ubuntu1.2
docker-compose-plugin	5.1.0-1~ubuntu.22.04~jammy	5.1.1-1~ubuntu.22.04~jammy
fonttools	4.62.0	4.62.1
gdrcopy	2.5.1	2.5.2
gdrcopy-tests	2.5.1	2.5.2

Package Name	Previous Version	New Version
gdrdrv-dkms	2.5.1	2.5.2
inspectorssmplugin	1.0.443	1.0.456
libgdrapi	2.5.1	2.5.2
libssh-4	0.9.6-2ubuntu0.22.04.6	0.9.6-2ubuntu0.22.04.7
linux-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-headers-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-image-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-libc-dev	5.15.0-171.181	5.15.0-173.183
linux-tools-common	5.15.0-171.181	5.15.0-173.183
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.0.3	2026.2.1
pyOpenSSL	25.3.0	26.0.0
pyasn1	0.6.2	0.6.3
python-discovery	1.1.3	1.2.0
python3-cryptography	3.4.8-1ubuntu2.3	3.4.8-1ubuntu2.4
snapd	2.73+ubuntu22.04	2.73+ubuntu22.04.1
vim-common	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26

Package Name	Previous Version	New Version
vim-runtime	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-tiny	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
xxd	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1046
linux-aws-6.8-headers-6.8.0-1047
linux-aws-6.8-tools-6.8.0-1046
linux-aws-6.8-tools-6.8.0-1047
linux-headers-6.8.0-1046-aws
linux-headers-6.8.0-1047-aws
linux-image-6.8.0-1046-aws
linux-image-6.8.0-1047-aws
linux-modules-6.8.0-1046-aws
linux-modules-6.8.0-1047-aws
linux-tools-6.8.0-1046-aws
linux-tools-6.8.0-1047-aws
lustre-client-modules-6.8.0-1047-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1047-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-aws-6.8-tools-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-headers-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-image-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-tools-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
lustre-client-modules-6.8.0-1047-aws-2.15.6-1fsx28
python-discovery-1.1.0
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1

Package Name	Previous Version	New Version
awscli	1.44.43	1.44.52
boto3	1.42.53	1.42.62
botocore	1.42.53	1.42.62
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
cpp-12	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
docker-ce-cli	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-compose-plugin	5.0.2-1~ubuntu.22.04~jammy	5.1.0-1~ubuntu.22.04~jammy
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
gcc-12-base	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
git-man	2.34.1-1ubuntu1.15	2.34.1-1ubuntu1.17
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441	1.0.443
isort	8.0.0	8.0.1
libasan8	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
libatomic1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcc1-0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcurl3-gnutls	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libcurl4	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libgcc-12-dev	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgcc-s1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgfortran5	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgomp1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libhwasan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libitm1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
liblsan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libnss3	3.98-0ubuntu0.22.04.2	3.98-0ubuntu0.22.04.3
libstdc++6	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
libtsan2	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libubsan1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-headers-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-image-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-libc-dev	5.15.0-170.180	5.15.0-171.181
linux-tools-common	5.15.0-170.180	5.15.0-171.181
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
nltk	3.9.2	3.9.3
platformdirs	4.9.2	4.4.0
redis	7.2.0	7.2.1
regex	2026.2.19	2026.2.28
sosreport	4.9.2-0ubuntu0~22.04.1	4.10.2-0ubuntu0~22.04.1
typer	0.24.0	0.24.1
u-boot-tools	2022.01+dfsg-2ubuntu2.6	2022.01+dfsg-2ubuntu2.7
virtualenv	20.38.0	21.1.0

Package Name	Previous Version	New Version
yarl	1.22.0	1.23.0

Removed Packages

Package Name
lustre-client-modules-6.8.0-1046-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1046-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2

efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1046-6.8.0-1046.49~22.04.1
linux-aws-6.8-tools-6.8.0-1046-6.8.0-1046.49~22.04.1
linux-headers-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-image-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-modules-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-tools-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
lustre-client-modules-6.8.0-1046-aws-2.15.6-1fsx26

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
awscli	1.44.38	1.44.43
boto3	1.42.48	1.42.53
botocore	1.42.48	1.42.53
cloud-init	25.2-0ubuntu1~22.04.1	25.3-0ubuntu1~22.04.1
cpp-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
filelock	3.21.2	3.24.3
g++-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
gcc-11-base	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
gfortran-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
isort	7.0.0	8.0.0
libasan6	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgcc-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
libgfortran-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgnutls30	3.7.3-4ubuntu1.7	3.7.3-4ubuntu1.8
librt	0.8.0	0.8.1
libssh-4	0.9.6-2ubuntu0.22.04.5	0.9.6-2ubuntu0.22.04.6
libstdc++-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libtsan0	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-headers-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-image-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
nh3	0.3.2	0.3.3
pipdeptree	2.30.0	2.31.0
platformdirs	4.7.1	4.4.0
pylint	4.0.4	4.0.5
redis	7.1.1	7.2.0
regex	2026.1.15	2026.2.19
rich	14.3.2	14.3.3

Package Name	Previous Version	New Version
typer	0.23.1	0.24.0
virtualenv	20.36.1	20.38.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1044
linux-aws-6.8-headers-6.8.0-1045
linux-aws-6.8-tools-6.8.0-1044
linux-aws-6.8-tools-6.8.0-1045
linux-headers-6.8.0-1044-aws
linux-headers-6.8.0-1045-aws
linux-image-6.8.0-1044-aws
linux-image-6.8.0-1045-aws
linux-modules-6.8.0-1044-aws
linux-modules-6.8.0-1045-aws
linux-tools-6.8.0-1044-aws
linux-tools-6.8.0-1045-aws
lustre-client-modules-6.8.0-1045-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0
amazon-cloudwatch-agent	1.300063.0b1323-1	1.300064.0b1337-1
awscli	1.44.28	1.44.33
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.43
botocore	1.42.38	1.42.43
dask	2026.1.1	2026.1.2
datacenter-gpu-manager-4-core	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-cuda13	4.5.1-1	4.5.2-1

Package Name	Previous Version	New Version
datacenter-gpu-manager-4-proprietary	4.5.1-1	4.5.2-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.1-1	4.5.2-1
docker-ce-cli	29.2.0-1~ubuntu.22.04~jammy	29.2.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.2.0-1~ubuntu.22.04~jammy	29.2.1-1~ubuntu.22.04~jammy
fastapi	0.128.0	0.128.2
fsspec	2026.1.0	2026.2.0
id	1.5.0	1.6.1
inspectorssmplugin	1.0.436	1.0.438
libc-bin	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc-dev-bin	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc-devtools	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc6	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libc6-dev	2.35-0ubuntu3.12	2.35-0ubuntu3.13
libglib2.0-0	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-bin	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-data	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libglib2.0-dev	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9

Package Name	Previous Version	New Version
libglib2.0-dev-bin	2.72.4-0ubuntu2.8	2.72.4-0ubuntu2.9
libldap-2.5-0	2.5.19+dfsg-0ubuntu0.22.04.1	2.5.20+dfsg-0ubuntu0.22.04.1
libldap-common	2.5.19+dfsg-0ubuntu0.22.04.1	2.5.20+dfsg-0ubuntu0.22.04.1
libmysqlclient21	8.0.44-0ubuntu0.22.04.2	8.0.45-0ubuntu0.22.04.1
libpython3.10	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-dev	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-minimal	3.10.12-1~22.04.13	3.10.12-1~22.04.14
libpython3.10-stdlib	3.10.12-1~22.04.13	3.10.12-1~22.04.14
locales	2.35-0ubuntu3.12	2.35-0ubuntu3.13
marshmallow	4.2.1	4.2.2
pip	25.3	26.0.1
python3.10-dev	3.10.12-1~22.04.13	3.10.12-1~22.04.14
python3.10-minimal	3.10.12-1~22.04.13	3.10.12-1~22.04.14
python3.10-venv	3.10.12-1~22.04.13	3.10.12-1~22.04.14
rich	14.3.1	14.3.2
tenacity	9.1.2	9.1.3
tqdm	4.67.1	4.67.3
ubuntu-minimal	1.481.4	1.481.5

Package Name	Previous Version	New Version
ubuntu-server	1.481.4	1.481.5
ubuntu-standard	1.481.4	1.481.5
wcwidth	0.5.2	0.5.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260130

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
dcgm_version	4.5.1

efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.23	1.44.28
boto3	1.42.33	1.42.38
botocore	1.42.33	1.42.38
cryptography	46.0.3	46.0.4
datacenter-gpu-manager-4-core	4.5.0-1	4.5.1-1

Package Name	Previous Version	New Version
datacenter-gpu-manager-4-cuda13	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary	4.5.0-1	4.5.1-1
datacenter-gpu-manager-4-proprietary-cuda13	4.5.0-1	4.5.1-1
docker-buildx-plugin	0.30.1-1~ubuntu.22.04~jammy	0.31.1-1~ubuntu.22.04~jammy
docker-ce-cli	29.1.5-1~ubuntu.22.04~jammy	29.2.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.5-1~ubuntu.22.04~jammy	29.2.0-1~ubuntu.22.04~jammy
greenlet	3.3.0	3.3.1
httplib2	0.31.1	0.31.2
inspectorssmplugin	1.0.434	1.0.436
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libssl-dev	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
libssl3	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
linux-libc-dev	5.15.0-164.174	5.15.0-168.178
linux-tools-common	5.15.0-164.174	5.15.0-168.178

Package Name	Previous Version	New Version
marshmallow	4.2.0	4.2.1
multidict	6.7.0	6.7.1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
pathspec	1.0.3	1.0.4
platformdirs	4.4.0	4.5.1
psutil	7.2.1	7.2.2
pytokens	0.4.0	0.4.1
rich	14.2.0	14.3.1
screen	4.9.0-1	4.9.0-1ubuntu0.1
setuptools	80.10.1	80.10.2
wcwidth	0.3.1	0.5.2
wheel	0.45.1	0.46.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.23
boto3	1.42.31	1.42.33
botocore	1.42.31	1.42.33
jmespath	1.0.1	1.1.0
libxml2	2.9.13+dfsg-1ubuntu0.10	2.9.13+dfsg-1ubuntu0.11
nvidia-ml-py	13.590.44	13.590.48
platformdirs	4.4.0	4.5.1
python3-pyasn1	0.4.8-1	0.4.8-1ubuntu0.1
wcwidth	0.3.0	0.3.1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.126.09
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
SQLAlchemy	2.0.45	2.0.46
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
docker-compose-plugin	5.0.1-1~ubuntu.22.04~jammy	5.0.2-1~ubuntu.22.04~jammy
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
libc-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-dev-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-devtools	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6-dev	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libglib2.0-0	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-data	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8

Package Name	Previous Version	New Version
libglib2.0-dev	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
locales	2.35-0ubuntu3.11	2.35-0ubuntu3.12
nvidia-imex	580.105.08-1	580.126.09-1
packaging	24.2	25.0
platformdirs	4.5.1	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6
pytokens	0.3.0	0.4.0
setuptools	80.9.0	80.10.1
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260119

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.5.0
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.14	1.44.20
black	25.12.0	26.1.0
boto3	1.42.24	1.42.30
botocore	1.42.24	1.42.30
dask	2025.12.0	2026.1.1
dill	0.4.0	0.4.1
docker-ce-cli	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
filelock	3.20.2	3.20.3
fsspec	2025.12.0	2026.1.0

Package Name	Previous Version	New Version
httplib2	0.31.0	0.31.1
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.432	1.0.434
jaraco.context	6.0.2	6.1.0
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpython3.10	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-stdlib	3.10.12-1~22.04.12	3.10.12-1~22.04.13
librt	0.7.7	0.7.8
libtasn1-6	4.18.0-4ubuntu0.1	4.18.0-4ubuntu0.2
more-itertools	10.8.0	10.3.0
packaging	24.2	25.0
pathspec	1.0.2	1.0.3
pyasn1	0.6.1	0.6.2

Package Name	Previous Version	New Version
python3-urllib3	1.26.5-1~exp1ubuntu0.4	1.26.5-1~exp1ubuntu0.5
python3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-venv	3.10.12-1~22.04.12	3.10.12-1~22.04.13
regex	2025.11.3	2026.1.15
tomlkit	0.13.3	0.14.0
typing_extensions	4.12.2	4.15.0
virtualenv	20.36.0	20.36.1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20260106

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08

default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.13.2	3.13.3
astroid	4.0.2	4.0.3
awscli	1.44.8	1.44.12
boto3	1.42.18	1.42.22
botocore	1.42.18	1.42.22
celery	5.6.1	5.6.2
certifi	2025.11.12	2026.1.4
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.431	1.0.432
ipython	8.37.0	8.38.0
jaraco.context	5.3.0	6.0.2
librt	0.7.5	0.7.7
marshmallow	4.1.2	4.2.0
pillow	12.0.0	12.1.0
platformdirs	4.5.1	4.2.2
ruamel.yaml	0.18.17	0.19.1
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.6	1.44.8
boto3	1.42.16	1.42.18
botocore	1.42.16	1.42.18
celery	5.6.0	5.6.1
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430	1.0.431
jaraco.context	6.0.2	5.3.0

Package Name	Previous Version	New Version
jaraco.functools	4.4.0	4.0.1
kombu	5.6.1	5.6.2
psutil	7.2.0	7.2.1
tomli	2.3.0	2.0.1
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1043-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
fonttools-4.61.0
```

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.7	1.43.9
boto3	1.42.1	1.42.3

Package Name	Previous Version	New Version
botocore	1.42.1	1.42.3
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-compose-plugin	2.40.3-1~ubuntu.22.04~jammy	5.0.0-1~ubuntu.22.04~jammy
fastapi	0.123.4	0.123.9
fsspec	2025.10.0	2025.12.0
greenlet	3.2.4	3.3.0
importlib_metadata	8.7.0	8.0.0
jaraco.context	5.3.0	6.0.1
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1
linux-libc-dev	5.15.0-161.171	5.15.0-163.173
linux-tools-common	5.15.0-161.171	5.15.0-163.173
platformdirs	4.2.2	4.5.0
tomli	2.3.0	2.0.1
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1040
linux-aws-6.8-tools-6.8.0-1040
linux-headers-6.8.0-1040-aws
linux-image-6.8.0-1040-aws
linux-modules-6.8.0-1040-aws
linux-tools-6.8.0-1040-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251202

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200, P6e-GB300
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1043-aws
python_location	/usr/bin/python3.10
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-13.0/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
dcgm_version	4.4.2
efa_version	1.45.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

Incremental-24.11.0
librt-0.6.3
tzlocal-5.3.1

Updated Packages

Package Name	Previous Version	New Version
SecretStorage	3.4.1	3.5.0
Werkzeug	3.1.3	3.1.4
anyio	4.11.0	4.12.0
awscli	1.43.1	1.43.7
billiard	4.2.3	4.2.4
binutils-aarch64-linux-gnu	2.38-4ubuntu2.10	2.38-4ubuntu2.11
binutils-common	2.38-4ubuntu2.10	2.38-4ubuntu2.11
boto3	1.41.1	1.42.1
botocore	1.41.1	1.42.1
celery	5.5.3	5.6.0
containerd.io	2.1.5-1~ubuntu.22.04~jammy	2.2.0-2~ubuntu.22.04~jammy
docker-buildx-plugin	0.30.0-1~ubuntu.22.04~jammy	0.30.1-1~ubuntu.22.04~jammy
docker-ce-cli	29.0.2-1~ubuntu.22.04~jammy	29.1.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.0.2-1~ubuntu.22.04~jammy	29.1.1-1~ubuntu.22.04~jammy
exceptiongroup	1.3.0	1.3.1
fastapi	0.121.3	0.123.4

Package Name	Previous Version	New Version
gdrcopy	2.5-1	2.5.1
gdrcopy-tests	2.5-1	2.5.1
gdrdrv-dkms	2.5-1	2.5.1
ibacm	58.amzn0-1	60.0-1
ibverbs-providers	58.amzn0-1	60.0-1
ibverbs-utils	58.amzn0-1	60.0-1
infiniband-diags	58.amzn0-1	60.0-1
inspectorssmplugin	1.0.418	1.0.419
jaraco.context	6.0.1	5.3.0
kombu	5.5.4	5.6.1
libbinutils	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf-nobfd0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libfabric-aws-bin	2.1.0amzn5.0	2.3.1amzn3.0
libfabric-aws-dev	2.1.0amzn5.0	2.3.1amzn3.0
libfabric1-aws	2.1.0amzn5.0	2.3.1amzn3.0
libgdrapi	2.5-1	2.5.1
libibmad-dev	58.amzn0-1	60.0-1
libibmad5	58.amzn0-1	60.0-1
libibnetdisc-dev	58.amzn0-1	60.0-1

Package Name	Previous Version	New Version
libibnetdisc5	58.amzn0-1	60.0-1
libibumad-dev	58.amzn0-1	60.0-1
libibumad3	58.amzn0-1	60.0-1
libibverbs-dev	58.amzn0-1	60.0-1
libibverbs1	58.amzn0-1	60.0-1
libnccl-ofi	1.16.3-1	1.17.2-1
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
libpython3.10	3.10.12-1~22.04.11	3.10.12-1~22.04.12
libpython3.10-dev	3.10.12-1~22.04.11	3.10.12-1~22.04.12
libpython3.10-minimal	3.10.12-1~22.04.11	3.10.12-1~22.04.12
libpython3.10-stdlib	3.10.12-1~22.04.11	3.10.12-1~22.04.12
librdmacm-dev	58.amzn0-1	60.0-1
librdmacm1	58.amzn0-1	60.0-1
lustre-client-modules-6.8.0-1043-aws	2.15.6-1fsx24	2.15.6-1fsx25
lustre-client-utils	2.15.6-1fsx24	2.15.6-1fsx25
more-itertools	10.3.0	10.8.0
mypy	1.18.2	1.19.0

Package Name	Previous Version	New Version
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
openmpi50-aws	5.0.6	5.0.8
platformdirs	4.2.2	4.5.0
pylint	4.0.3	4.0.4
python3.10-dev	3.10.12-1~22.04.11	3.10.12-1~22.04.12
python3.10-minimal	3.10.12-1~22.04.11	3.10.12-1~22.04.12
python3.10-venv	3.10.12-1~22.04.11	3.10.12-1~22.04.12
rdmacm-utils	58.amzn0-1	60.0-1
s3transfer	0.15.0	0.16.0
tomli	2.3.0	2.0.1
typing_extensions	4.12.2	4.15.0
ubuntu-pro-client	36ubuntu0~22.04	37.1ubuntu0~22.04
ubuntu-pro-client-l10n	36ubuntu0~22.04	37.1ubuntu0~22.04

Removed Packages

Package Name
datacenter-gpu-manager-4-cuda12
datacenter-gpu-manager-4-proprietary-cuda12
incremental

Package Name
sniffio

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251031

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	4.4.1
ofi_nccl_version	1.16.3

Package Name	Version
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.13.1	3.13.2
awscli	1.42.58	1.42.63
binutils-aarch64-linux-gnu	2.38-4ubuntu2.8	2.38-4ubuntu2.10
binutils-common	2.38-4ubuntu2.8	2.38-4ubuntu2.10
boto3	1.40.58	1.40.63
botocore	1.40.58	1.40.63

Package Name	Previous Version	New Version
docker-compose-plugin	2.40.2-1~ubuntu.22.04~jammy	2.40.3-1~ubuntu.22.04~jammy
fastapi	0.120.0	0.120.3
fsspec	2025.9.0	2025.10.0
libbinutils	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf-nobfd0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libssh-4	0.9.6-2ubuntu0.22.04.4	0.9.6-2ubuntu0.22.04.5
libxml2	2.9.13+dfsg-1ubuntu0.9	2.9.13+dfsg-1ubuntu0.10
linux-libc-dev	5.15.0-160.170	5.15.0-161.171
linux-tools-common	5.15.0-160.170	5.15.0-161.171
more-itertools	10.8.0	10.3.0
nh3	0.3.1	0.3.2
pbr	7.0.1	7.0.2
pip	25.2	25.3
platformdirs	4.2.2	4.5.0
psutil	7.1.1	7.1.2
redis	7.0.0	7.0.1
starlette	0.48.0	0.49.1

Package Name	Previous Version	New Version
virtualenv	20.35.3	20.35.4

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws

Package Name	Version
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
```

```
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21
```

Updated Packages

Package Name	Previous Version	New Version
aiohttp	3.12.15	3.13.0
attrs	25.3.0	25.4.0
awscli	1.42.44	1.42.49
boto3	1.40.44	1.40.49
botocore	1.40.44	1.40.49
certifi	2025.8.3	2025.10.5
docker-buildx-plugin	0.29.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
fastapi	0.118.0	0.118.2
filelock	3.19.1	3.20.0
frozenlist	1.7.0	1.8.0
inspectorssmplugin	1.0.398	1.0.399

Package Name	Previous Version	New Version
jaraco.context	6.0.1	5.3.0
libnss-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libpam-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libsystemd0	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev-dev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev1	249.11-0ubuntu3.16	249.11-0ubuntu3.17
linux-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-image-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
lustre-client-modules-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
multidict	6.6.4	6.7.0
nh3	0.3.0	0.3.1
packaging	25.0	24.2
platformdirs	4.4.0	4.5.0
propcache	0.3.2	0.4.1
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
pylint	3.3.8	3.3.9

Package Name	Previous Version	New Version
rich	14.1.0	14.2.0
snapd	2.68.5+ubuntu22.04.1	2.71+ubuntu22.04
systemd-sysv	249.11-0ubuntu3.16	249.11-0ubuntu3.17
tomli	2.2.1	2.0.1
typing_extensions	4.12.2	4.15.0
udev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
virtualenv	20.34.0	20.35.1
yarl	1.20.1	1.22.0

Removed Packages

Package Name
lustre-client-modules-6.8.0-1039-aws

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250927

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1039-aws

Package Name	Version
python_location	/usr/bin/python3.10
nvidia_driver	580.82.07
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.6,/usr/local/cuda-12.8,/usr/local/cuda-12.9,/usr/local/cuda-13.0
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
dcgm_version	4.4.1
efa_version	1.43.2
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.42.39	1.42.40
boto3	1.40.39	1.40.40
botocore	1.40.39	1.40.40
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
importlib_metadata	8.0.0	8.7.0
inspectorssmplugin	1.0.396	1.0.398
jaraco.functools	4.0.1	4.3.0
more-itertools	10.3.0	10.8.0
platformdirs	4.2.2	4.4.0
tomli	2.2.1	2.0.1
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-09-27

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250927

Updated

- Upgraded Nvidia Driver from 570.172.08 to 580.82.07
- Upgraded EFA from 1.42.0 to 1.43.2
- Updated default CUDA from 12.8 to 12.9

Added

- CUDA directory of 12.9 with compiled NCCL Version 2.28.3+CUDA12.9 and CuDNN 9.13.0
- CUDA directory of 13.0 with compiled NCCL Version 2.28.3+CUDA13.0 and CuDNN 9.13.0

Removed

- CUDA directory of 12.4 with compiled NCCL Version 2.22.3+CUDA12.4 and CuDNN 9.7.1.26
- CUDA directory of 12.5 with compiled NCCL Version 2.22.3+CUDA12.5 and CuDNN 9.7.1.26

Release Date: 2025-07-22

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250722

Updated

- Upgraded Nvidia Driver from 570.158.01 to 570.172.08 to fix CVE's present in the Nvidia Security Bulletin for July

Release Date: 2025-07-04

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250704

Updated

- Added support to EC2 instance P6e-GB200. Please note that CUDA>=12.8 is supported on P6e-GB200
- Add EFA 1.42.0
- Upgraded Nvidia driver from version 570.133.20 to 570.158.01
- Upgraded CUDA 12.8 stack with NCCL 2.27.5

Release Date: 2025-04-24

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250424

Updated

- Upgraded Nvidia driver from version 570.86.15 to 570.133.20 to address CVE's present in the NVIDIA GPU Display Driver Security Bulletin for April 2025
- Updated CUDA 12.8 stack with NCCL 2.26.2
- Updated default CUDA from 12.6 to 12.8
- Removed CUDA 12.3

Release Date: 2025-03-03

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250303

Updated

- Nvidia driver from 550.144.03 to 570.86.15
- Default CUDA is changed from CUDA12.1 to CUDA12.6

Added

- CUDA directory of 12.4 with compiled NCCL Version 2.22.3+CUDA12.4 and CuDNN 9.7.1.26
- CUDA directory of 12.5 with compiled NCCL Version 2.22.3+CUDA12.5 and CuDNN 9.7.1.26
- CUDA directory of 12.6 with compiled NCCL Version 2.24.3+CUDA12.6 and CuDNN 9.7.1.26
- CUDA directory of 12.8 with compiled NCCL Version 2.25.1+CUDA12.8 and CuDNN 9.7.1.26

Removed

- CUDA directory of 12.1 and 12.2

Release Date: 2025-02-17

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250214

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-17

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20250117

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2024-10-23

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20241023

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVEs present in the NVIDIA GPU Display Security Bulletin for October 2024

Release Date: 2024-06-06

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20240606

Updated

- Updated Nvidia driver version to 535.183.01 from 535.161.08

Release Date: 2024-05-15

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) 20240514

Added

- Initial release of the Deep Learning ARM64 Base OSS DLAMI for Ubuntu 22.04

AWS Deep Learning ARM64 Base GPU AMI (Amazon Linux 2)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=base-oss-nvidia-driver-gpu-amazon-linux-2/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon
 Linux 2) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260324
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260320
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260307
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260224
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260206
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260203
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260121
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260106
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251230
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251226
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251209
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251121
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251107
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251007
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20250930
- Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20250926

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260324

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2

compute_architecture	aarch64
kernel_version	5.10.251-248.983.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3883.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7

Package Name	Previous Version	New Version
boto3	1.42.72	1.42.74
botocore	1.42.72	1.42.74
fastapi	0.135.1	0.135.2
inspectorssmplugin	1.0.456-1	1.0.458-1
jaraco.context	6.1.1	6.1.2
jsonpointer	3.0.0	3.1.1
nltk	3.9.3	3.9.4
pipdeptree	2.32.0	2.34.0
redis	7.3.0	7.4.0
starlette	0.52.1	1.0.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.251-248.983.amzn2.aarch64
python_location	/usr/bin/python3.10

nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3883.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.11.0	2.12.1
amazon-ssm-agent	3.3.3598.0-1.amzn2	3.3.3883.0-1.amzn2
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0

Package Name	Previous Version	New Version
black	26.3.0	26.3.1
bokeh	3.8.2	3.9.0
boto3	1.42.64	1.42.72
botocore	1.42.64	1.42.72
charset-normalizer	3.4.5	3.4.6
dask	2026.1.2	2026.3.0
filelock	3.25.1	3.25.2
fonttools	4.62.0	4.62.1
inspectorssmplugin	1.0.443-1	1.0.456-1
jaraco.context	6.1.0	6.1.1
jupyterlab	4.5.5	4.5.6
lcms2	2.6-3.amzn2.0.2	2.6-3.amzn2.0.3
libtiff	4.0.3-35.amzn2.0.28	4.0.3-35.amzn2.0.29
narwhals	2.17.0	2.18.0
nvidia-ml-py	13.590.48	13.595.45
pipdeptree	2.31.0	2.32.0
pipenv	2026.0.3	2026.2.1
pyOpenSSL	25.3.0	26.0.0
pyasn1	0.6.2	0.6.3
python-discovery	1.1.2	1.2.0

Package Name	Previous Version	New Version
tornado	6.5.4	6.5.5

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.251-248.983.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-5.10.251-248.983-1.0-0.amzn2
lazy-loader-0.5
python-discovery-1.1.1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
black	26.1.0	26.3.0
boto3	1.42.55	1.42.63
botocore	1.42.55	1.42.63
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
ec2-hibinit-agent	1.0.10-1.amzn2	1.0.10-2.amzn2

Package Name	Previous Version	New Version
fastapi	0.133.0	0.135.1
filelock	3.24.3	3.25.0
isort	8.0.0	8.0.1
kernel	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
kernel-devel	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
kernel-headers	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
kernel-tools	5.10.248-247.988.amzn2	5.10.251-248.983.amzn2
libpng	1.5.13-8.amzn2.0.6	1.5.13-8.amzn2.0.7
libxml2	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
libxml2-devel	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
libxml2-python	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
platformdirs	4.4.0	4.9.4
plotly	6.5.2	6.6.0
python	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-devel	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-libs	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-pillow	2.0.0-23.gitd1c6db8.amzn2.0.16	2.0.0-23.gitd1c6db8.amzn2.0.17

Package Name	Previous Version	New Version
python3	3.7.16-1.amzn2.0.22	3.7.16-1.amzn2.0.23
python3-libs	3.7.16-1.amzn2.0.22	3.7.16-1.amzn2.0.23
pytz	2025.2	2026.1.post1
redis	7.2.0	7.3.0
regex	2026.2.19	2026.2.28
virtualenv	20.39.0	21.1.0
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-5.10.248-247.988
lazy_loader

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260224

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.248-247.988.amzn2.aarch64
python_location	/usr/bin/python3.10

nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.1.0	2.2.0
boto3	1.42.53	1.42.55
botocore	1.42.53	1.42.55
fastapi	0.129.0	0.133.0

Package Name	Previous Version	New Version
greenlet	3.3.1	3.3.2
inspectorssmplugin	1.0.441-1	1.0.443-1
jupyterlab	4.5.4	4.5.5
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
typer	0.24.0	0.24.1
virtualenv	20.38.0	20.39.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.247-246.992.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/

nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.247-246.992-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.40	1.42.43
botocore	1.42.40	1.42.43
containerd	2.1.5-1.amzn2.0.4	2.1.5-1.amzn2.0.5
fastapi	0.128.0	0.128.2
fsspec	2026.1.0	2026.2.0

Package Name	Previous Version	New Version
id	1.5.0	1.6.1
java-11-amazon-corretto-headless	11.0.29+7-1.amzn2	11.0.30+7-1.amzn2
kernel	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-devel	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-headers	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-tools	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
libsoup	2.56.0-6.amzn2.0.5	2.56.0-6.amzn2.0.7
libtasn1	4.10-1.amzn2.0.7	4.10-1.amzn2.0.8
libxml2	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
libxml2-devel	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
libxml2-python	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
marshmallow	4.2.1	4.2.2
opencv-python	4.13.0.90	4.13.0.92
pip	26.0	26.0.1
platformdirs	4.5.1	4.4.0
python-urllib3	1.25.9-1.amzn2.0.8	1.25.9-1.amzn2.0.9
python2-pyasn1	0.1.9-7.amzn2.0.2	0.1.9-7.amzn2.0.3

Package Name	Previous Version	New Version
python3-pip	20.2.2-1.amzn2.0.14	20.2.2-1.amzn2.0.15
runc	1.3.4-1.amzn2	1.3.4-2.amzn2
tenacity	9.1.2	9.1.3
tqdm	4.67.2	4.67.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260203

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.247-246.989.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.2
ebs_volume_type	gp3

ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyJWT	2.10.1	2.11.0
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.40
botocore	1.42.38	1.42.40
dask	2026.1.1	2026.1.2
inspectorssmplugin	1.0.436-1	1.0.438-1
narwhals	2.15.0	2.16.0
pip	25.3	26.0
platformdirs	4.4.0	4.5.1

Package Name	Previous Version	New Version
rich	14.3.1	14.3.2
tqdm	4.67.1	4.67.2
wcwidth	0.5.2	0.5.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.247-246.989.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
importlib_metadata	8.7.1	8.0.0
more-itertools	10.3.0	10.8.0
packaging	24.2	25.0
platformdirs	4.2.2	4.5.1
tomli	2.4.0	2.0.1
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20260106

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.247-246.989.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

grub2-tools-extra-2.06-14.amzn2.0.7
kernel-livepatch-5.10.247-246.989-1.0-0.amzn2

Updated Packages

Package Name	Previous Version	New Version
Cython	3.2.3	3.2.4
Send2Trash	1.8.3	2.0.0
aiohttp	3.13.2	3.13.3
amazon-cloudwatch-agent	1.300060.1-1.amzn2	1.300062.1-1.amzn2
amazon-ssm-agent	3.3.3050.0-1.amzn2	3.3.3572.0-1.amzn2
anyio	4.12.0	4.12.1
astroid	4.0.2	4.0.3
aws-cfn-bootstrap	2.0-36.amzn2	2.0-38.amzn2
bokeh	3.8.1	3.8.2
boto3	1.42.19	1.42.22
botocore	1.42.19	1.42.22
celery	5.6.1	5.6.2
certifi	2025.11.12	2026.1.4
containerd	2.1.5-1.amzn2.0.1	2.1.5-1.amzn2.0.3
cpp	7.3.1-17.amzn2	7.3.1-18.amzn2

Package Name	Previous Version	New Version
docker	25.0.13-1.amzn2.0.2	25.0.14-1.amzn2.0.1
filelock	3.20.1	3.20.2
gcc	7.3.1-17.amzn2	7.3.1-18.amzn2
gcc-c++	7.3.1-17.amzn2	7.3.1-18.amzn2
gcc-gfortran	7.3.1-17.amzn2	7.3.1-18.amzn2
glib2	2.56.1-9.amzn2.0.12	2.56.1-9.amzn2.0.13
grub2	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-common	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-efi-aa64	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-efi-aa64-ec2	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-efi-aa64-modules	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-tools	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-tools-minimal	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
importlib_metadata	8.7.1	8.0.0
inspectorssmplugin	1.0.431-1	1.0.432-1
ipython	8.37.0	8.38.0
jaraco.functools	4.0.1	4.4.0
json5	0.12.1	0.13.0
kernel-devel	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2

Package Name	Previous Version	New Version
kernel-headers	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
kernel-tools	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
libatomic	7.3.1-17.amzn2	7.3.1-18.amzn2
libblkid	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libfdisk	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libgcc	7.3.1-17.amzn2	7.3.1-18.amzn2
libgfortran	7.3.1-17.amzn2	7.3.1-18.amzn2
libgomp	7.3.1-17.amzn2	7.3.1-18.amzn2
libitm	7.3.1-17.amzn2	7.3.1-18.amzn2
libmount	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libpng	1.5.13-8.amzn2.0.5	1.5.13-8.amzn2.0.6
librt	0.7.5	0.7.7
libsanitizer	7.3.1-17.amzn2	7.3.1-18.amzn2
libsmartcols	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libstdc++	7.3.1-17.amzn2	7.3.1-18.amzn2
libuuid	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
marshmallow	4.1.2	4.2.0
more-itertools	10.8.0	10.3.0
narwhals	2.14.0	2.15.0

Package Name	Previous Version	New Version
pathspec	0.12.1	1.0.0
pillow	12.0.0	12.1.0
python-urllib3	1.25.9-1.amzn2.0.5	1.25.9-1.amzn2.0.7
python3	3.7.16-1.amzn2.0.21	3.7.16-1.amzn2.0.22
python3-libs	3.7.16-1.amzn2.0.21	3.7.16-1.amzn2.0.22
ruamel.yaml	0.18.17	0.19.1
runc	1.3.3-2.amzn2	1.3.4-1.amzn2
systemtap	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-client	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-devel	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-runtime	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
tomli	2.0.1	2.3.0
typer	0.21.0	0.21.1
typing_extensions	4.15.0	4.12.2
util-linux	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
webkitgtk4	2.48.7-1.amzn2	2.50.4-1.amzn2
webkitgtk4-jsc	2.48.7-1.amzn2	2.50.4-1.amzn2
zipp	3.23.0	3.19.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251230

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.245-245.983.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.16	1.42.19
botocore	1.42.16	1.42.19
celery	5.6.0	5.6.1
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430-1	1.0.431-1
jaraco.functools	4.0.1	4.4.0
kombu	5.6.1	5.6.2
packaging	25.0	24.2
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
tomli	2.0.1	2.3.0

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.245-245.983.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.15	1.42.16
botocore	1.42.15	1.42.16
importlib_metadata	8.7.1	8.0.0
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.0.1	4.4.0
librt	0.7.4	0.7.5
psutil	7.1.3	7.2.0
typer	0.20.1	0.21.0
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251209

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.245-245.983.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.245-245.983-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
acpid	2.0.19-9.amzn2.0.1	2.0.19-9.amzn2.0.2
bind-export-libs	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
bind-libs	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
bind-libs-lite	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
bind-license	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
bind-utils	9.11.4-26.P2.amzn2.13.12	9.11.4-26.P2.amzn2.13.13
black	25.11.0	25.12.0
boto3	1.42.3	1.42.5
botocore	1.42.3	1.42.5
containerd	2.1.4-1.amzn2.0.2	2.1.5-1.amzn2.0.1
curl	8.3.0-1.amzn2.0.10	8.3.0-1.amzn2.0.11
ec2-hibinit-agent	1.0.8-0.amzn2	1.0.10-0.amzn2
fastapi	0.123.9	0.124.0

Package Name	Previous Version	New Version
glib2	2.56.1-9.amzn2.0.11	2.56.1-9.amzn2.0.12
inspectorssmplugin	1.0.419-1	1.0.423-1
jaraco.functools	4.0.1	4.3.0
kernel	5.10.245-243.979.amzn2	5.10.245-245.983.amzn2
kernel-devel	5.10.245-243.979.amzn2	5.10.245-245.983.amzn2
kernel-headers	5.10.245-243.979.amzn2	5.10.245-245.983.amzn2
kernel-tools	5.10.245-243.979.amzn2	5.10.245-245.983.amzn2
libcurl	8.3.0-1.amzn2.0.10	8.3.0-1.amzn2.0.11
libcurl-devel	8.3.0-1.amzn2.0.10	8.3.0-1.amzn2.0.11
librt	0.6.3	0.7.3
marshmallow	4.1.0	4.1.1
nvidia-ml-py	13.580.82	13.590.44
packaging	25.0	24.2
pipenv	2025.0.4	2025.1.3
pygal	3.0.5	3.1.0
pytest	9.0.1	9.0.2
python3	3.7.16-1.amzn2.0.20	3.7.16-1.amzn2.0.21
python3-libs	3.7.16-1.amzn2.0.20	3.7.16-1.amzn2.0.21

Package Name	Previous Version	New Version
tomli	2.0.1	2.3.0
urllib3	2.5.0	2.6.1

Removed Packages

Package Name
kernel-livepatch-5.10.245-243.979

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.245-241.978.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.18.0
ebs_volume_type	gp3

ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.40.75	1.41.1
botocore	1.40.75	1.41.1
fastapi	0.121.2	0.121.3
inspectorssmplugin	1.0.413-1	1.0.418-1
jaraco.functools	4.3.0	4.0.1
jupyterlab	4.4.10	4.5.0
more-itertools	10.8.0	10.3.0
redis	7.0.1	7.1.0
s3transfer	0.14.0	0.15.0

Package Name	Previous Version	New Version
starlette	0.49.3	0.50.0
tomli	2.0.1	2.3.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
gdr_copy	
supported_ec2_instances	G5g
efa_version	cat: /opt/amazon/efa_installed_packages: No such file or directory
ebs_volume_type	gp3
nvidia_driver	570.195.03
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
ssm_agent_version	3.3.3050.0
kernel_version	5.10.245-241.976.amzn2.aarch64

Package Name	Version
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: dcgmi: command not found
ofi_nccl_version	
operating_system	Amazon Linux 2
default_cuda	/usr/local/cuda-12.1/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ImageIO-2.37.2
```

Updated Packages

Package Name	Previous Version	New Version
Cython	3.1.6	3.2.0

Package Name	Previous Version	New Version
bind-export-libs	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-libs	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-libs-lite	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-license	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
bind-utils	9.11.4-26.P2.amzn2.13.11	9.11.4-26.P2.amzn2.13.12
boto3	1.40.65	1.40.68
botocore	1.40.65	1.40.68
dask	2025.10.0	2025.11.0
inspectorssmplugin	1.0.405-1	1.0.410-1
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.0.1	4.3.0
more-itertools	10.8.0	10.3.0
narwhals	2.10.1	2.10.2
packaging	24.2	25.0
platformdirs	4.2.2	4.5.0
plotly	6.3.1	6.4.0
pydantic	2.12.3	2.12.4

Package Name	Previous Version	New Version
pydantic_core	2.41.4	2.41.5
pytokens	0.2.0	0.3.0
tomli	2.3.0	2.0.1
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
imageio

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
gdr_copy	
supported_ec2_instances	G5g
efa_version	cat: /opt/amazon/efa_installed_packages: No such file or directory
ebs_volume_type	gp3

Package Name	Version
nvidia_driver	570.195.03
python_location	/usr/bin/python3.10
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
ssm_agent_version	3.3.3050.0
kernel_version	5.10.244-240.965.amzn2.aarch64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	
operating_system	Amazon Linux 2
default_cuda	/usr/local/cuda-12.1/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
aiohttp	3.12.15	3.13.0
attrs	25.3.0	25.4.0
boto3	1.40.41	1.40.46
botocore	1.40.41	1.40.46
certifi	2025.8.3	2025.10.5
cryptography	46.0.1	46.0.2
frozenlist	1.7.0	1.8.0
importlib_metadata	8.7.0	8.0.0
inspectorssmplugin	1.0.398-1	1.0.399-1
isort	6.0.1	6.1.0
jaraco.functools	4.3.0	4.0.1
kernel	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
multidict	6.6.4	6.7.0
narwhals	2.6.0	2.7.0
nh3	0.3.0	0.3.1
nltk	3.9.1	3.9.2
packaging	25.0	24.2
pip-tools	7.5.0	7.5.1

Package Name	Previous Version	New Version
plotly	6.3.0	6.3.1
propcache	0.3.2	0.4.0
pydantic	2.11.9	2.11.10
pylint	3.3.8	3.3.9
python-json-logger	3.3.0	4.0.0
tomli	2.0.1	2.2.1
typing-inspection	0.4.1	0.4.2
typing_extensions	4.15.0	4.12.2
yarl	1.20.1	1.22.0

Removed Packages

Package Name
kernel-livepatch-5.10.242-239.961

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20250930

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64

Package Name	Version
kernel_version	5.10.244-240.965.amzn2.aarch64
python_location	/usr/bin/python3.10
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
gdr_copy	
nvidia_container_toolkit_version	1.17.8
efa_version	cat: /opt/amazon/efa_installed_packages: No such file or directory
ofi_nccl_version	
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.244-240.965-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
MarkupSafe	3.0.2	3.0.3
amazon-ssm-agent	3.3.2299.0-1.amzn2	3.3.3050.0-1.amzn2
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.39	1.40.41
botocore	1.40.39	1.40.41
cups-libs	1.6.3-51.amzn2.0.5	1.6.3-51.amzn2.0.6
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
importlib_metadata	8.7.0	8.0.0
inspectorssmplugin	1.0.396-1	1.0.398-1
jaraco.functools	4.0.1	4.3.0
jupyterlab	4.4.8	4.4.9
kernel-devel	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-headers	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2

Package Name	Previous Version	New Version
kernel-livepatch-5.10.242-239.961	1.0-0.amzn2	1.0-2.amzn2
kernel-tools	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
libsoup	2.56.0-6.amzn2.0.4	2.56.0-6.amzn2.0.5
libtiff	4.0.3-35.amzn2.0.24	4.0.3-35.amzn2.0.25
lustre-client	2.12.8-13.amzn2	2.12.8-14.amzn2
narwhals	2.5.0	2.6.0
openjpeg2	2.4.0-5.amzn2.0.1	2.4.0-5.amzn2.0.2
pandas	2.3.2	2.3.3
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g
operating_system	Amazon Linux 2
compute_architecture	aarch64
kernel_version	5.10.242-239.961.amzn2.aarch64

Package Name	Version
python_location	/usr/bin/python3.10
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.17.8
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.40.36	1.40.39
botocore	1.40.36	1.40.39

Package Name	Previous Version	New Version
importlib_metadata	8.0.0	8.7.0
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.0.1	4.3.0
jupyterlab	4.4.7	4.4.8
more-itertools	10.3.0	10.8.0
packaging	24.2	25.0
platformdirs	4.2.2	4.4.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
safety-schemas	0.0.14	0.0.16
tomli	2.0.1	2.2.1
typing_extensions	4.15.0	4.12.2
zope.interface	8.0	8.0.1

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-07-22

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20250722

Updated

- Upgraded Nvidia Driver from 570.158.01 to 570.172.08 to fix CVE's present in the Nvidia Security Bulletin for July

Release Date: 2025-02-17

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20250214

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-17

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20250117

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2024-10-22

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20241022

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVEs present in the NVIDIA GPU Display Security Bulletin for October 2024

Release Date: 2024-10-08

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20241008

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2, addressing the security vulnerability CVE-2024-0133.

Release Date: 2024-06-06

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20240606

Updated

- Updated Nvidia driver version to 535.183.01 from 535.161.08

Release Date: 2024-05-14

AMI name: Deep Learning ARM64 Base OSS Nvidia Driver GPU AMI (Amazon Linux 2) 20240514

Added

- Initial release of the Deep Learning ARM64 Base OSS DLAMI for Amazon Linux 2

AWS Neuron

- Refer to the Neuron DLAMI User Guide.

Release Notes for Single Framework DLAMIs

PyTorch DLAMIs

X86 PyTorch DLAMI Release Notes

Below are the Release notes for X86 PyTorch DLAMIs:

GPU

- AWS Deep Learning OSS AMI GPU PyTorch 2.10 (Amazon Linux 2023)
- AWS Deep Learning OSS AMI GPU PyTorch 2.10 (Ubuntu 24.04)
- AWS Deep Learning OSS AMI GPU PyTorch 2.9 (Amazon Linux 2023)
- AWS Deep Learning OSS AMI GPU PyTorch 2.9 (Ubuntu 24.04)
- AWS Deep Learning OSS AMI GPU PyTorch 2.8 (Amazon Linux 2023)
- AWS Deep Learning OSS AMI GPU PyTorch 2.8 (Ubuntu 24.04)
- AWS Deep Learning OSS AMI GPU PyTorch 2.7 (Amazon Linux 2023)
- AWS Deep Learning OSS AMI GPU PyTorch 2.7 (Ubuntu 22.04)
- AWS Deep Learning AMI GPU PyTorch 2.6 (Amazon Linux 2023)
- AWS Deep Learning AMI GPU PyTorch 2.6 (Ubuntu 22.04)

- Refer to the Neuron DLAMI User Guide

AWS Deep Learning OSS AMI GPU PyTorch 2.10 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- Starting with PyTorch 2.9, CUDA and related libraries are now located within the Pytorch virtual environment found in `/opt/pytorch/cuda` instead of being installed at the system level. This

change reduces the image size while maintaining full CUDA functionality. Please ensure that the PyTorch virtual environment is activated to utilize CUDA using `source /opt/pytorch/bin/activate`

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.10 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.10-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.10 (Amazon
 Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.10 (Amazon Linux 2023) 20260321

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.10 (Amazon Linux 2023) 20260321

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
framework_version	2.10
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.16
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.47.0
ofi_nccl_version	1.18.0
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.58	1.44.63
boto3	1.42.68	1.42.73
botocore	1.42.68	1.42.73
charset-normalizer	3.4.5	3.4.6
cuda-pathfinder	1.4.2	1.4.3
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
inspectorssmplugin	1.0.443-1	1.0.456-1
jsonpointer	3.0.0	3.1.0
onnxruntime	1.24.3	1.24.4
platformdirs	4.9.4	4.4.0
pyasn1	0.6.2	0.6.3
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0

Package Name	Previous Version	New Version
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
uvicorn	0.41.0	0.42.0

Removed Packages

No packages were removed in this release.

AWS Deep Learning OSS AMI GPU PyTorch 2.10 (Ubuntu 24.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- Starting with PyTorch 2.9, CUDA and related libraries are now located within the Pytorch virtual environment found in `/opt/pytorch/cuda` instead of being installed at the system level. This change reduces the image size while maintaining full CUDA functionality. Please ensure that the PyTorch virtual environment is activated to utilize CUDA using `source /opt/pytorch/bin/activate`

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.10 (Ubuntu 24.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
aws ssm get-parameter --region us-east-1 \
```

```
    --name /aws/service/deeplearning/ami/x86_64/oss-nvidia-driver-gpu-pytorch-2.10-
ubuntu-24.04/latest/ami-id \
    --query "Parameter.Value" \
    --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.10 (Ubuntu
 24.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.10 (Ubuntu 24.04) 20260321

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.10 (Ubuntu 24.04) 20260321

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1009-aws
framework_version	2.10
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.16

gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.47.0
ofi_nccl_version	1.18.0
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

prettytable-3.17.0

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0

Package Name	Previous Version	New Version
awscli	1.44.60	1.44.63
binutils-common	2.42-4ubuntu2.8	2.42-4ubuntu2.10
binutils-x86-64-linux-gnu	2.42-4ubuntu2.8	2.42-4ubuntu2.10
boto3	1.42.70	1.42.73
botocore	1.42.70	1.42.73
coreutils	9.4-3ubuntu6.1	9.4-3ubuntu6.2
databricks-sdk	0.100.0	0.102.0
deepdiff	8.6.1	8.6.2
docker-compose-plugin	5.1.0-1~ubuntu.24.04~noble	5.1.1-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.454	1.0.456
jsonpointer	3.0.0	3.1.0
libbinutils	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf-nobfd0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libgprofng0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libsframe1	2.42-4ubuntu2.8	2.42-4ubuntu2.10
platformdirs	4.9.4	4.4.0
protobuf	6.33.5	6.33.6
sagemaker	3.5.0	3.6.0

Package Name	Previous Version	New Version
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
snapd	2.73+ubuntu24.04.1	2.73+ubuntu24.04.2

Removed Packages

No packages were removed in this release.

Archive

AWS Deep Learning OSS AMI GPU PyTorch 2.9 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- Starting with PyTorch 2.9, CUDA and related libraries are now located within the Pytorch virtual environment found in `/opt/pytorch/cuda` instead of being installed at the system level. This change reduces the image size while maintaining full CUDA functionality. Please ensure that the PyTorch virtual environment is activated to utilize CUDA using `source /opt/pytorch/bin/activate`

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.9-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux
 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260321
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260307
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260221
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260128
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20251227
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20251124

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260321

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.58	1.44.63
boto3	1.42.68	1.42.73
botocore	1.42.68	1.42.73
charset-normalizer	3.4.5	3.4.6
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
inspectorssmplugin	1.0.443-1	1.0.456-1
jsonpointer	3.0.0	3.1.0
onnxruntime	1.24.3	1.24.4
pyasn1	0.6.2	0.6.3
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0

Package Name	Previous Version	New Version
uvicorn	0.41.0	0.42.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.163-186.299-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-linux-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
awscli	1.44.44	1.44.53
boto3	1.42.54	1.42.63
botocore	1.42.54	1.42.63
cachetools	7.0.1	7.0.3
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
container-selinux	2.242.0-1.amzn2023	2.245.0-1.amzn2023

Package Name	Previous Version	New Version
databricks-sdk	0.91.0	0.96.0
dnf-plugin-support-info	1.10-1.amzn2023	1.11-1.amzn2023
ec2-hibinit-agent	1.0.10-1.amzn2023	1.0.10-2.amzn2023
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.7	2.3.9
google-auth	2.48.0	2.49.0
graphql-core	3.2.7	3.2.8
inspectorssmplugin	1.0.441-1	1.0.443-1
ipython	9.10.0	9.11.0
jupyterlab	4.5.4	4.5.5
jxl-pixbuf-loader	0.10.3-54.amzn2023	0.10.3-55.amzn2023
kernel	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-devel	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-headers	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-libbpf	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-livepatch-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023

Package Name	Previous Version	New Version
kernel-modules-extra	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-modules-extra-common	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-tools	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
libjxl	0.10.3-54.amzn2023	0.10.3-55.amzn2023
libpng	1.6.37-10.amzn2023.0.10	1.6.37-10.amzn2023.0.11
libsoup3	3.6.5-55.amzn2023	3.6.5-56.amzn2023
libssh	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-config	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-devel	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libxml2	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
libxml2-devel	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
lustre-client	2.15.6-25.amzn2023	2.15.6-27.amzn2023
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1

Package Name	Previous Version	New Version
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
platformdirs	4.9.2	4.9.4
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
scipy	1.17.0	1.17.1
selinux-policy	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1

Package Name	Previous Version	New Version
selinux-policy-targeted	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
system-release	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
systemtap	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-client	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-runtime	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-dtrace	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
typer	0.24.0	0.24.1
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-6.1.161-183.298

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260221

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	x86_64
kernel_version	6.1.161-183.298.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
async-lru	2.1.0	2.2.0
awscli	1.44.39	1.44.44
boto3	1.42.49	1.42.54
botocore	1.42.49	1.42.54
cachetools	6.2.6	7.0.1
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5

Package Name	Previous Version	New Version
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
databricks-sdk	0.88.0	0.91.0
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
filelock	3.21.2	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
numba	0.63.1	0.64.0

Package Name	Previous Version	New Version
onnxruntime	1.24.1	1.24.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
protobuf	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1
pyarrow	22.0.0	23.0.1
pybind11	3.0.1	3.0.2

Package Name	Previous Version	New Version
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
python3.12	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
python3.12-devel	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
python3.12-libs	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
regex	2026.1.15	2026.2.19
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
typer	0.23.1	0.24.0
uvicorn	0.40.0	0.41.0
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260128

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	x86_64
kernel_version	6.1.159-182.297.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.159-182.297-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
awscli	1.44.22	1.44.26
boto3	1.42.32	1.42.36
botocore	1.42.32	1.42.36
cmake	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-data	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-filesystem	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-rpm-macros	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
containerd	2.1.5-1.amzn2023.0.3	2.1.5-1.amzn2023.0.4
cryptography	46.0.3	46.0.4

Package Name	Previous Version	New Version
dnf-plugin-release-notification	1.2-1.amzn2023.0.2	1.3-1.amzn2023.0.1
ec2-hibinit-agent	1.0.10-0.amzn2023	1.0.10-1.amzn2023
einops	0.8.1	0.8.2
gnupg2	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
gnupg2-smime	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
highway	1.2.0-30.amzn2023.0.1	1.2.0-31.amzn2023.0.2
jupyterlab	4.5.2	4.5.3
kernel	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-devel	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-headers	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-libbpf	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-livepatch-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
kernel-modules-extra	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-modules-extra-common	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023

Package Name	Previous Version	New Version
kernel-tools	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libxml2	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
libxml2-devel	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
marshmallow	4.2.0	4.2.1
nvidia-container-toolkit	1.18.1-1	1.18.2-1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
openexr-libs	3.1.5-1.amzn2023.0.5	3.1.5-1.amzn2023.0.6
packaging	24.2	26.0
python3-pip-wheel	21.3.1-2.amzn2023.0.14	21.3.1-2.amzn2023.0.15
python3.12-pip	23.2.1-4.amzn2023.0.5	23.2.1-4.amzn2023.0.6
python3.12-pip-wheel	23.2.1-4.amzn2023.0.5	23.2.1-4.amzn2023.0.6
rich	14.2.0	14.3.1
sagemaker-core	1.0.74	1.0.75

Package Name	Previous Version	New Version
setuptools	80.10.1	80.10.2
system-release	2023.10.20260105-0 .amzn2023	2023.10.20260120-0 .amzn2023
tzdata	2025b-1.amzn2023.0.1	2025c-1.amzn2023.0.1
wcwidth	0.3.0	0.5.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
kernel-livepatch-6.1.159-181.297

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
importlib_metadata	8.0.0	8.7.1

Package Name	Previous Version	New Version
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
more-itertools	10.3.0	10.8.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
pandas	2.3.3	3.0.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
platformdirs	4.5.1	4.2.2
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.159-181.297-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
Werkzeug	3.1.4	3.1.5
amazon-cloudwatch-agent	1.300060.1-1.amzn2023	1.300062.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251208-2.amzn2023	2023.10.20260105-0.amzn2023
amazon-ssm-agent	3.3.3050.0-1.amzn2023	3.3.3572.0-1.amzn2023
anyio	4.12.0	4.12.1
aws-cfn-bootstrap	2.0-37.amzn2023	2.0-38.amzn2023
awscli	1.44.11	1.44.20

Package Name	Previous Version	New Version
bokeh	3.8.1	3.8.2
boto3	1.42.21	1.42.30
botocore	1.42.21	1.42.30
certifi	2025.11.12	2026.1.4
containerd	2.1.5-1.amzn2023.0.1	2.1.5-1.amzn2023.0.3
cups-filesystem	2.4.14-1.amzn2023.0.1	2.4.14-1.amzn2023.0.2
cups-libs	2.4.14-1.amzn2023.0.1	2.4.14-1.amzn2023.0.2
curl-minimal	8.11.1-4.amzn2023.0.3	8.15.0-4.amzn2023.0.1
dnf-plugin-support-info	1.9-1.amzn2023	1.10-1.amzn2023
dnf-plugins-core	4.3.0-13.amzn2023.0.5	4.3.0-13.amzn2023.0.6
dnf-utils	4.3.0-13.amzn2023.0.5	4.3.0-13.amzn2023.0.6
docker	25.0.13-1.amzn2023.0.2	25.0.14-1.amzn2023.0.1
dracut	102-3.amzn2023.0.1	102-3.amzn2023.0.2
dracut-config-generic	102-3.amzn2023.0.1	102-3.amzn2023.0.2
filelock	3.20.2	3.20.3

Package Name	Previous Version	New Version
fsspec	2025.12.0	2026.1.0
glib2	2.82.2-767.amzn2023	2.82.2-769.amzn2023
grub2-common	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
grub2-efi-x64-ec2	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
grub2-pc-modules	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
grub2-tools	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
grub2-tools-minimal	2.06-61.amzn2023.0.20	2.06-61.amzn2023.0.21
inspectorssmplugin	1.0.431-1	1.0.434-1
ipython	9.8.0	9.9.0
jsonschema	4.25.1	4.26.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
kernel	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-devel	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-headers	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023

Package Name	Previous Version	New Version
kernel-libbpf	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-livepatch-repo-s3	2023.9.20251208-2.amzn2023	2023.10.20260105-0.amzn2023
kernel-modules-extra	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-modules-extra-common	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
kernel-tools	6.1.158-180.294.amzn2023	6.1.159-181.297.amzn2023
libcap	2.73-1.amzn2023.0.4	2.73-1.amzn2023.0.5
libcurl-devel	8.11.1-4.amzn2023.0.3	8.15.0-4.amzn2023.0.1
libcurl-minimal	8.11.1-4.amzn2023.0.3	8.15.0-4.amzn2023.0.1
libeconf	0.4.0-1.amzn2023.0.3	0.7.9-1.amzn2023.0.1
libpciaccess	0.16-4.amzn2023.0.2	0.16-4.amzn2023.0.3
libpng	1.6.37-10.amzn2023.0.7	1.6.37-10.amzn2023.0.8
marshmallow	4.1.2	4.2.0
narwhals	2.14.0	2.15.0
nvidia-nvml-dev	13.1.68	13.1.115
nvlsm	2025.06.10-1	2025.06.11-1

Package Name	Previous Version	New Version
openssl	3.2.2-1.amzn2023.0.2	3.2.2-1.amzn2023.0.3
openssl-devel	3.2.2-1.amzn2023.0.2	3.2.2-1.amzn2023.0.3
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.2	3.2.2-1.amzn2023.0.3
openssl-libs	3.2.2-1.amzn2023.0.2	3.2.2-1.amzn2023.0.3
pam	1.5.1-8.amzn2023.0.7	1.5.1-8.amzn2023.0.8
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
python3	3.9.25-1.amzn2023.0.1	3.9.25-1.amzn2023.0.3
python3-awscrt	0.28.4-1.amzn2023.0.1	0.29.1-1.amzn2023.0.1
python3-dnf-plugin-versionlock	4.3.0-13.amzn2023.0.5	4.3.0-13.amzn2023.0.6
python3-dnf-plugins-core	4.3.0-13.amzn2023.0.5	4.3.0-13.amzn2023.0.6
python3-libs	3.9.25-1.amzn2023.0.1	3.9.25-1.amzn2023.0.3
python3.12	3.12.12-2.amzn2023.0.2	3.12.12-2.amzn2023.0.3
python3.12-devel	3.12.12-2.amzn2023.0.2	3.12.12-2.amzn2023.0.3

Package Name	Previous Version	New Version
python3.12-libs	3.12.12-2.amzn2023.0.2	3.12.12-2.amzn2023.0.3
regex	2025.11.3	2026.1.15
rng-tools	6.14-1.git.56626083.amzn2023.0.3	6.17-1.amzn2023.0.1
runc	1.3.3-2.amzn2023.0.1	1.3.4-1.amzn2023.0.1
rust-toolset-srpm-macros	1.91.0-1.amzn2023.0.1	1.92.0-1.amzn2023.0.1
sagemaker	2.255.0	2.256.0
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
strace	6.8-1.amzn2023.0.1	6.12-1.amzn2023.0.1
system-release	2023.9.20251208-2.amzn2023	2023.10.20260105-0.amzn2023
systemd	252.23-10.amzn2023	252.23-11.amzn2023
systemd-devel	252.23-10.amzn2023	252.23-11.amzn2023
systemd-libs	252.23-10.amzn2023	252.23-11.amzn2023
systemd-networkd	252.23-10.amzn2023	252.23-11.amzn2023
systemd-pam	252.23-10.amzn2023	252.23-11.amzn2023
systemd-resolved	252.23-10.amzn2023	252.23-11.amzn2023
systemd-rpm-macros	252.23-10.amzn2023	252.23-11.amzn2023
systemd-udev	252.23-10.amzn2023	252.23-11.amzn2023

Package Name	Previous Version	New Version
tomlkit	0.13.3	0.14.0
typer	0.21.0	0.21.1
typing_extensions	4.15.0	4.12.2
urllib3	2.6.2	2.6.3

Removed Packages

Package Name
kernel-livepatch-6.1.158-180.294

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20260103

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.7	1.44.11
boto3	1.42.17	1.42.21
botocore	1.42.17	1.42.21
fastapi	0.127.1	0.128.0

Package Name	Previous Version	New Version
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430-1	1.0.431-1
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20251227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64

framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.2	1.44.7

Package Name	Previous Version	New Version
boto3	1.42.12	1.42.17
botocore	1.42.12	1.42.17
fastapi	0.125.0	0.127.1
gymnasium	1.2.2	1.2.3
inspectorssmplugin	1.0.429-1	1.0.430-1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
nbclient	0.10.2	0.10.4
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
sagemaker-core	1.0.71	1.0.72
soupsieve	2.8	2.8.1
typer	0.20.0	0.21.0
typing_extensions	4.15.0	4.12.2
uvicorn	0.38.0	0.40.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20251124

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

AWS Deep Learning OSS AMI GPU PyTorch 2.9 (Ubuntu 24.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- Starting with PyTorch 2.9, CUDA and related libraries are now located within the Pytorch virtual environment found in `/opt/pytorch/cuda` instead of being installed at the system level. This change reduces the image size while maintaining full CUDA functionality. Please ensure that the PyTorch virtual environment is activated to utilize CUDA using `source /opt/pytorch/bin/activate`

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/x86_64/oss-nvidia-driver-gpu-pytorch-2.9-
ubuntu-24.04/latest/ami-id \
```

```
    --query "Parameter.Value" \
    --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu
 24.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260321
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260317
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260307
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260226
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20251227
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20251125

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260321

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS

compute_architecture	x86_64
kernel_version	6.17.0-1009-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
prettytable-3.17.0
```

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.60	1.44.63
binutils-common	2.42-4ubuntu2.8	2.42-4ubuntu2.10
binutils-x86-64-linux-gnu	2.42-4ubuntu2.8	2.42-4ubuntu2.10
boto3	1.42.70	1.42.73
botocore	1.42.70	1.42.73
coreutils	9.4-3ubuntu6.1	9.4-3ubuntu6.2
databricks-sdk	0.100.0	0.102.0
deepdiff	8.6.1	8.6.2
docker-compose-plugin	5.1.0-1~ubuntu.24.04~noble	5.1.1-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.454	1.0.456
jsonpointer	3.0.0	3.1.0
libbinutils	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf-nobfd0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libgprofng0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libsframe1	2.42-4ubuntu2.8	2.42-4ubuntu2.10

Package Name	Previous Version	New Version
protobuf	6.33.5	6.33.6
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
snapd	2.73+ubuntu24.04.1	2.73+ubuntu24.04.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260317

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1009-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09

gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.58	1.44.60
boto3	1.42.68	1.42.70
botocore	1.42.68	1.42.70

Package Name	Previous Version	New Version
charset-normalizer	3.4.5	3.4.6
databricks-sdk	0.99.0	0.100.0
inspectorssmplugin	1.0.443	1.0.454
libssh-4	0.10.6-2ubuntu0.3	0.10.6-2ubuntu0.4
onnxruntime	1.24.3	1.24.4
pyasn1	0.6.2	0.6.3
python3-cryptography	41.0.7-4ubuntu0.3	41.0.7-4ubuntu0.4
snapd	2.73+ubuntu24.04	2.73+ubuntu24.04.1
uvicorn	0.41.0	0.42.0
vim-common	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-runtime	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-tiny	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
xxd	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10

Removed Packages

Package Name
prettytable

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1007-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.47	2.0.48
awscli	1.44.47	1.44.53
boto3	1.42.57	1.42.63
botocore	1.42.57	1.42.63
cachetools	7.0.1	7.0.3
charset-normalizer	3.4.4	3.4.5
databricks-sdk	0.93.0	0.96.0
docker-ce-cli	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
fastapi	0.133.1	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.8	2.3.9
google-auth	2.48.0	2.49.0

Package Name	Previous Version	New Version
graphql-core	3.2.7	3.2.8
intel-microcode	3.20250812.0ubuntu 0.24.04.1	3.20260210.0ubuntu 0.24.04.1
ipython	9.10.0	9.11.0
libnss3	3.98-1build1	3.98-1ubuntu0.1
linux-base	4.5ubuntu9+24.04.1	4.5ubuntu9+24.04.2
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-sema ntic-conventions	0.60b1	0.61b0
platformdirs	4.9.2	4.4.0
python-dotenv	1.2.1	1.2.2
python3-software-p roperties	0.99.49.3	0.99.49.4
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28

Package Name	Previous Version	New Version
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
software-properties-common	0.99.49.3	0.99.49.4
sosreport	4.9.2-0ubuntu0~24.04.1	4.10.2-0ubuntu0~24.04.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64

kernel_version	6.17.0-1007-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.17-headers-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-aws-6.17-tools-6.17.0-1007-6.17.0-1007.7~24.04.1

linux-headers-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-image-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-extra-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-tools-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
lustre-client-modules-6.17.0-1007-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
SQLAlchemy	2.0.46	2.0.47
Werkzeug	3.1.5	3.1.6
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
async-lru	2.1.0	2.2.0
awscli	1.44.39	1.44.47
boto3	1.42.49	1.42.57
botocore	1.42.49	1.42.57
cachetools	6.2.6	7.0.1
certifi	2026.1.4	2026.2.25

Package Name	Previous Version	New Version
cloud-init	25.2-0ubuntu1~24.04.1	25.3-0ubuntu1~24.04.1
cpp-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
cpp-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
databricks-sdk	0.88.0	0.93.0
docker-compose-plugin	5.0.2-1~ubuntu.24.04~noble	5.1.0-1~ubuntu.24.04~noble
fastapi	0.129.0	0.133.1
filelock	3.23.0	3.24.3
g++-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
g++-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-base	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-14-base	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
geventhttpclient	2.3.7	2.3.8
gfortran-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1

Package Name	Previous Version	New Version
gfortran-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
inspectorssmplugin	1.0.441	1.0.443
jupyterlab	4.5.4	4.5.5
libasan8	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libatomic1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcc1-0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcurl3t64-gnutls	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libcurl4t64	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libexpat1	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libexpat1-dev	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libgcc-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgcc-s1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgfortran-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1

Package Name	Previous Version	New Version
libgfortran5	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgnutls30t64	3.8.3-1.1ubuntu3.4	3.8.3-1.1ubuntu3.5
libgomp1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libhwasan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libitm1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
liblsan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libquadmath0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libssh-4	0.10.6-2ubuntu0.2	0.10.6-2ubuntu0.3
libstdc++-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libstdc++6	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libtsan2	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libubsan1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
linux-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1

Package Name	Previous Version	New Version
linux-headers-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-image-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-libc-dev	6.8.0-100.100	6.8.0-101.101
linux-modules-extra-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-tools-common	6.8.0-100.100	6.8.0-101.101
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
numba	0.63.1	0.64.0
onnx-ir	0.1.16	0.2.0
onnxruntime	1.24.1	1.24.2
packaging	25.0	26.0
platformdirs	4.8.0	4.9.2
pyarrow	22.0.0	23.0.1
pybind11	3.0.1	3.0.2

Package Name	Previous Version	New Version
regex	2026.1.15	2026.2.19
scipy	1.17.0	1.17.1
systemd-hwe-hwdb	255.1.6	255.1.7
typer	0.23.1	0.24.1
uvicorn	0.40.0	0.41.0
wireless-regdb	2025.07.10-0ubuntu 1~24.04.1	2025.10.07-0ubuntu 1~24.04.1

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1018
linux-aws-6.14-tools-6.14.0-1018
linux-headers-6.14.0-1018-aws
linux-image-6.14.0-1018-aws
linux-modules-6.14.0-1018-aws
linux-modules-extra-6.14.0-1018-aws
linux-tools-6.14.0-1018-aws
lustre-client-modules-6.14.0-1018-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

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our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
docker-compose-plugin	5.0.1-1~ubuntu.24.04~noble	5.0.2-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
libgirepository-2.0-0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-0t64	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-data	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7

Package Name	Previous Version	New Version
libglib2.0-dev	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
more-itertools	10.3.0	10.8.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
onnx-ir	0.1.14	0.1.15
packaging	24.2	25.0
pandas	2.3.3	3.0.0
platformdirs	4.5.1	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme

ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
java-21-amazon-corretto-jdk	21.0.9.11-1	21.0.10.7-1
kpartx	0.9.4-5ubuntu8	0.9.4-5ubuntu8.1
multiprocess	0.70.18	0.70.19

Package Name	Previous Version	New Version
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python

nvidia_driver	580.105.08
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
Werkzeug	3.1.4	3.1.5

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300062.0b1304-1	1.300063.0b1323-1
anyio	4.12.0	4.12.1
awscli	1.44.11	1.44.20
bokeh	3.8.1	3.8.2
boto3	1.42.21	1.42.30
botocore	1.42.21	1.42.30
certifi	2025.11.12	2026.1.4
dirmngr	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
docker-ce-cli	29.1.3-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.3-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
filelock	3.20.2	3.20.3
fsspec	2025.12.0	2026.1.0
gir1.2-glib-2.0	2.80.0-6ubuntu3.5	2.80.0-6ubuntu3.6
gnupg	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
gnupg-l10n	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
gnupg-utils	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
gpg	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
gpg-agent	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4

Package Name	Previous Version	New Version
gpg-wks-client	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
gpgconf	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
gpgsm	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
gpgv	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
inspectorssmplugin	1.0.431	1.0.434
ipython	9.8.0	9.9.0
jsonschema	4.25.1	4.26.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
keyboxd	2.4.4-2ubuntu17.3	2.4.4-2ubuntu17.4
klibc-utils	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libgirepository-2.0-0	2.80.0-6ubuntu3.5	2.80.0-6ubuntu3.6
libglib2.0-0t64	2.80.0-6ubuntu3.5	2.80.0-6ubuntu3.6
libglib2.0-bin	2.80.0-6ubuntu3.5	2.80.0-6ubuntu3.6
libglib2.0-data	2.80.0-6ubuntu3.5	2.80.0-6ubuntu3.6
libglib2.0-dev	2.80.0-6ubuntu3.5	2.80.0-6ubuntu3.6
libglib2.0-dev-bin	2.80.0-6ubuntu3.5	2.80.0-6ubuntu3.6
libheif-plugin-aomdec	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2

Package Name	Previous Version	New Version
libheif-plugin-aomenc	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif-plugin-libde265	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif1	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libklibc	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libnetsnmptrapd40t64	5.9.4+dfsg-1.1ubuntu3.1	5.9.4+dfsg-1.1ubuntu3.2
libpng-dev	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpng-tools	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpng16-16t64	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpython3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-stdlib	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12t64	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libsnmp-base	5.9.4+dfsg-1.1ubuntu3.1	5.9.4+dfsg-1.1ubuntu3.2
libsnmp-dev	5.9.4+dfsg-1.1ubuntu3.1	5.9.4+dfsg-1.1ubuntu3.2
libsnmp-perl	5.9.4+dfsg-1.1ubuntu3.1	5.9.4+dfsg-1.1ubuntu3.2

Package Name	Previous Version	New Version
libsnmp40t64	5.9.4+dfsg-1.1ubuntu3.1	5.9.4+dfsg-1.1ubuntu3.2
libsodium23	1.0.18-1build3	1.0.18-1ubuntu0.24.04.1
libtasn1-6	4.19.0-3ubuntu0.24.04.1	4.19.0-3ubuntu0.24.04.2
libxslt1.1	1.1.39-0exp1ubuntu0.24.04.2	1.1.39-0exp1ubuntu0.24.04.3
marshmallow	4.1.2	4.2.0
narwhals	2.14.0	2.15.0
nvidia-nvml-dev	13.1.68	13.1.115
nvlsm	2025.06.10-1	2025.06.11-1
onnx	1.20.0	1.20.1
onnx-ir	0.1.13	0.1.14
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
python3-urllib3	2.0.7-1ubuntu0.3	2.0.7-1ubuntu0.6
python3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-venv	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
regex	2025.11.3	2026.1.15

Package Name	Previous Version	New Version
sagemaker	2.255.0	2.256.0
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
snapd	2.72+ubuntu24.04	2.73+ubuntu24.04
tomlkit	0.13.3	0.14.0
typer	0.21.0	0.21.1
urllib3	2.6.2	2.6.3
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20260103

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python

nvidia_driver	580.105.08
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.7	1.44.11

Package Name	Previous Version	New Version
boto3	1.42.17	1.42.21
botocore	1.42.17	1.42.21
docker-compose-plugin	5.0.0-1~ubuntu.24.04~noble	5.0.1-1~ubuntu.24.04~noble
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430	1.0.431
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20251227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.4	1.44.7
boto3	1.42.14	1.42.17
botocore	1.42.14	1.42.17
fastapi	0.125.0	0.127.1
libxnvctrl0	590.44.01-0ubuntu1	590.48.01-0ubuntu1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
nbclient	0.10.3	0.10.4
platformdirs	4.2.2	4.5.1
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
typer	0.20.1	0.21.0
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20251125

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1017-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

Archive

AWS Deep Learning OSS AMI GPU PyTorch 2.8 (Amazon Linux 2023)

Note

For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.8-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
```

```
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux
 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260321
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260307
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260221
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260128
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251227
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251206
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251115
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251007
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20250927

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260321

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.58	1.44.63
boto3	1.42.68	1.42.73
botocore	1.42.68	1.42.73
charset-normalizer	3.4.5	3.4.6
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
inspectorssmplugin	1.0.443-1	1.0.456-1
jsonpointer	3.0.0	3.1.0
nvidia-ml-py	13.590.48	13.595.45
onnxruntime	1.24.3	1.24.4
pyasn1	0.6.2	0.6.3
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0

Package Name	Previous Version	New Version
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
uvicorn	0.41.0	0.42.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2

efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.163-186.299-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-linux-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
awscli	1.44.44	1.44.53
boto3	1.42.54	1.42.63

Package Name	Previous Version	New Version
botocore	1.42.54	1.42.63
cachetools	7.0.1	7.0.3
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
container-selinux	2.242.0-1.amzn2023	2.245.0-1.amzn2023
databricks-sdk	0.91.0	0.96.0
dnf-plugin-support-info	1.10-1.amzn2023	1.11-1.amzn2023
ec2-hibinit-agent	1.0.10-1.amzn2023	1.0.10-2.amzn2023
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.7	2.3.9
google-auth	2.48.0	2.49.0
graphql-core	3.2.7	3.2.8
inspectorssmplugin	1.0.441-1	1.0.443-1
ipython	9.10.0	9.11.0
jupyterlab	4.5.4	4.5.5
jxl-pixbuf-loader	0.10.3-54.amzn2023	0.10.3-55.amzn2023
kernel	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023

Package Name	Previous Version	New Version
kernel-devel	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-headers	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-libbpf	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-livepatch-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
kernel-modules-extra	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-modules-extra-common	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-tools	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
libjxl	0.10.3-54.amzn2023	0.10.3-55.amzn2023
libpng	1.6.37-10.amzn2023.0.10	1.6.37-10.amzn2023.0.11
libsoup3	3.6.5-55.amzn2023	3.6.5-56.amzn2023
libssh	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-config	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-devel	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4

Package Name	Previous Version	New Version
libxml2	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
libxml2-devel	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
lustre-client	2.15.6-25.amzn2023	2.15.6-27.amzn2023
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0

Package Name	Previous Version	New Version
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
scipy	1.17.0	1.17.1
selinux-policy	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
selinux-policy-targeted	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
system-release	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
systemtap	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-client	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-runtime	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-dtrace	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
typer	0.24.0	0.24.1
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-6.1.161-183.298

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260221

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	x86_64
kernel_version	6.1.161-183.298.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
async-lru	2.1.0	2.2.0
awscli	1.44.39	1.44.44

Package Name	Previous Version	New Version
boto3	1.42.49	1.42.54
botocore	1.42.49	1.42.54
cachetools	6.2.6	7.0.1
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
databricks-sdk	0.88.0	0.91.0
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
filelock	3.21.2	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1

Package Name	Previous Version	New Version
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
numba	0.63.1	0.64.0
onnxruntime	1.24.1	1.24.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
packaging	25.0	26.0
platformdirs	4.4.0	4.9.2

Package Name	Previous Version	New Version
protobuf	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1
pyarrow	22.0.0	23.0.1
pybind11	3.0.1	3.0.2
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
regex	2026.1.15	2026.2.19
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
typer	0.23.1	0.24.0
uvicorn	0.40.0	0.41.0
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Package Name	Previous Version	New Version
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260128

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	x86_64
kernel_version	6.1.159-182.297.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3

ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.159-182.297-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
awscli	1.44.22	1.44.26
boto3	1.42.32	1.42.36
botocore	1.42.32	1.42.36
cmake	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-data	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5

Package Name	Previous Version	New Version
cmake-filesystem	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-rpm-macros	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
containerd	2.1.5-1.amzn2023.0.3	2.1.5-1.amzn2023.0.4
cryptography	46.0.3	46.0.4
dnf-plugin-release-notification	1.2-1.amzn2023.0.2	1.3-1.amzn2023.0.1
ec2-hibinit-agent	1.0.10-0.amzn2023	1.0.10-1.amzn2023
einops	0.8.1	0.8.2
gnupg2	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
gnupg2-smime	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
highway	1.2.0-30.amzn2023.0.1	1.2.0-31.amzn2023.0.2
jupyterlab	4.5.2	4.5.3
kernel	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-devel	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-headers	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-libbpf	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023

Package Name	Previous Version	New Version
kernel-livepatch-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
kernel-modules-extra	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-modules-extra-common	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-tools	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libxml2	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
libxml2-devel	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
marshmallow	4.2.0	4.2.1
nvidia-container-toolkit	1.18.1-1	1.18.2-1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
openexr-libs	3.1.5-1.amzn2023.0.5	3.1.5-1.amzn2023.0.6
packaging	25.0	26.0
platformdirs	4.5.1	4.4.0

Package Name	Previous Version	New Version
python3-pip-wheel	21.3.1-2.amzn2023.0.14	21.3.1-2.amzn2023.0.15
rich	14.2.0	14.3.1
sagemaker-core	1.0.74	1.0.75
setuptools	80.10.1	80.10.2
system-release	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
tzdata	2025b-1.amzn2023.0.1	2025c-1.amzn2023.0.1
wcwidth	0.3.0	0.5.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
kernel-livepatch-6.1.159-181.297

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64

kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
more-itertools	10.3.0	10.8.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
packaging	24.2	25.0
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.5.1
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0

Package Name	Previous Version	New Version
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08

nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31

Package Name	Previous Version	New Version
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
platformdirs	4.2.2	4.5.1
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64

kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
awscli	1.44.15	1.44.20
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
inspectorssmplugin	1.0.432-1	1.0.434-1
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
nvlsm	2025.06.10-1	2025.06.11-1
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20260103

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.7	1.44.10
boto3	1.42.17	1.42.20
botocore	1.42.17	1.42.20
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430-1	1.0.431-1
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.15	1.44.7
boto3	1.42.9	1.42.17
botocore	1.42.9	1.42.17
debugpy	1.8.18	1.8.19
fastapi	0.124.4	0.127.1
filelock	3.20.0	3.20.1
gymnasium	1.2.2	1.2.3
inspectorssmplugin	1.0.428-1	1.0.430-1
joblib	1.5.2	1.5.3
jupyterlab	4.5.0	4.5.1
marshmallow	4.1.1	4.1.2

Package Name	Previous Version	New Version
mistune	3.1.4	3.2.0
narwhals	2.13.0	2.14.0
nbclient	0.10.2	0.10.4
platformdirs	4.2.2	4.5.1
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
ruamel.yaml	0.18.16	0.18.17
sagemaker-core	1.0.71	1.0.72
soupsieve	2.8	2.8.1
tornado	6.5.3	6.5.4
typer	0.20.0	0.21.0
typing_extensions	4.15.0	4.12.2
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200

operating_system	Amazon Linux 2023.9.20251117
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
awscli	1.43.5	1.43.10
beautifulsoup4	4.14.2	4.14.3
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
fastapi	0.122.0	0.123.10
fsspec	2025.10.0	2025.12.0
ipython	9.7.0	9.8.0
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit	1.18.0-1	1.18.1-1
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-fabricmanager	580.95.05-1	580.105.08-1
rpds-py	0.29.0	0.30.0

Package Name	Previous Version	New Version
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
typing_extensions	4.12.2	4.15.0
urllib3	2.5.0	2.6.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
multidict
propcache
wrapt
yarl

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251115

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251110
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ImageIO-2.37.2
kernel-livepatch-6.1.158-178.288-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300059.1-1.amzn2023	1.300060.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
annotated-doc	0.0.3	0.0.4
awscli	1.42.65	1.42.74
bind-libs	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-license	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4

Package Name	Previous Version	New Version
bind-utils	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bokeh	3.8.0	3.8.1
boto3	1.40.65	1.40.74
botocore	1.40.65	1.40.74
certifi	2025.10.5	2025.11.12
containerd	2.1.4-1.amzn2023.0.1	2.1.4-1.amzn2023.0.2
dkms	3.2.1-182.amzn2023	3.3.0-183.amzn2023
dnf-plugin-support-info	1.8-1.amzn2023	1.9-1.amzn2023
docker	7.1.0	25.0.13-1.amzn2023.0.2
dwz	0.14-6.amzn2023.0.2	0.16-2.amzn2023.0.1
fastapi	0.121.0	0.121.2
graphene	3.4.3	1.10.6-9.amzn2023.0.1
gymnasium	1.2.1	1.2.2
ibacm	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
infiniband-diags	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
infiniband-diags-compat	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
inspectorssmplugin	1.0.405-1	1.0.412-1

Package Name	Previous Version	New Version
ipython	9.6.0	9.7.0
kernel	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-devel	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-headers	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-libbpf	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-livepatch-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
kernel-modules-extra	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-modules-extra-common	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-tools	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
libcap	2.73-1.amzn2023.0.3	2.73-1.amzn2023.0.4
libfabric-aws	2.1.0amzn5.0-1.amzn2023	2.3.1amzn1.0-1.amzn2023
libfabric-aws-devel	2.1.0amzn5.0-1.amzn2023	2.3.1amzn1.0-1.amzn2023
libibumad	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libibverbs	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023

Package Name	Previous Version	New Version
libibverbs-utils	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libnccl-ofi	1.16.3-1.amzn2023	1.17.1-1.amzn2023
librdmacm	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
librdmacm-utils	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libssh	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-config	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-devel	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
lustre-client	2.15.6-21.amzn2023	2.15.6-23.amzn2023
lz4-libs	1.9.4-1.amzn2023.0.2	1.9.4-1.amzn2023.0.3
narwhals	2.10.1	2.11.0
nvlsm	2025.06.6-1	2025.06.10-1
openmpi50-aws	5.0.6-11	5.0.8amzn1-11
pam	1.5.1-8.amzn2023.0.6	1.5.1-8.amzn2023.0.7
prettytable	3.16.0	3.17.0
protobuf	6.31.1	3.19.6-1.amzn2023.0.1
pydantic	2.12.3	2.9.2
pydantic_core	2.41.4	2.23.4

Package Name	Previous Version	New Version
python3	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-libs	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-pyverbs	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
rdma-core	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
rdma-core-devel	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
runc	1.3.2-2.amzn2023.0.1	1.3.3-2.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
sagemaker-core	1.0.62	1.0.66
system-release	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
tblib	3.2.1	3.2.2
typing_extensions	4.15.0	4.12.2
tzdata	2025.2	2025b-1.amzn2023.0.1

Removed Packages

Package Name
imageio
kernel-livepatch-6.1.156-177.286

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251103

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.8
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.9
ssm_agent_version	3.3.3050.0
kernel_version	6.1.156-177.286.amzn2023.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.9/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
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Added Packages

```
apr-util-lmdb-1.6.3-1.amzn2023.0.2
kernel-livepatch-6.1.156-177.286-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
audit-libs	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
awscli	1.42.59	1.42.65
bleach	6.2.0	6.3.0
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4

Package Name	Previous Version	New Version
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.59	1.40.65
botocore	1.40.59	1.40.65
cloudpickle	3.1.1	3.1.2
fastapi	0.120.0	0.121.0
fsspec	2025.9.0	2025.10.0
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
graphql-core	3.2.6	3.2.7
grub2-common	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-efi-x64-ec2	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-pc-modules	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools-minimal	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
inspectorssmplugin	1.0.402-1	1.0.405-1
ipywidgets	8.1.7	8.1.8

Package Name	Previous Version	New Version
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1
jupyterlab_widgets	3.0.15	3.0.16
kernel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-devel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-headers	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-libbpf	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-livepatch-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
kernel-modules-extra	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-modules-extra-common	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-tools	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
lark	1.3.0	1.3.1
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023

Package Name	Previous Version	New Version
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
marshmallow	4.0.1	4.1.0
narwhals	2.9.0	2.10.1
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1
pip	25.2	25.3
platformdirs	4.5.0	4.2.2
psutil	7.1.1	7.1.3
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6

Package Name	Previous Version	New Version
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
regex	2025.10.23	2025.11.3
runc	1.3.1-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.59	1.0.62
scipy	1.16.2	1.16.3
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.48.0	0.49.3
system-release	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
tblib	3.2.0	3.2.1
termcolor	3.1.0	3.2.0
typing_extensions	4.12.2	4.15.0
webcolors	24.11.1	25.10.0
widgetsnbextension	4.0.14	4.0.15
xyzservices	2025.4.0	2025.10.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-6.1.155-176.282

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.8
gdr_copy	2.5
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.9
ssm_agent_version	3.3.3050.0
kernel_version	6.1.153-175.280.amzn2023.x86_64

Package Name	Version
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.9/
compute_architecture	x86_64

Package Changes from Previous Release

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>
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Added Packages

kernel-livepatch-6.1.153-175.280-1.0-0.amzn2023
nvidia-fabricmanager-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
amazon-rpm-config	228-9.amzn2023.0.1	228-10.amzn2023.0.1
amazon-ssm-agent	3.3.2299.0-1.amzn2023	3.3.3050.0-1.amzn2023
attrs	25.3.0	25.4.0
awscli	1.42.40	1.42.46
beautifulsoup4	4.13.5	4.14.2
binutils	2.41-50.amzn2023.0.3	2.41-50.amzn2023.0.4
boto3	1.40.40	1.40.46
botocore	1.40.40	1.40.46
certifi	2025.8.3	2025.10.5
container-selinux	2.233.0-1.amzn2023	2.242.0-1.amzn2023
coreutils	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
coreutils-common	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
cpp14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
cryptography	46.0.1	46.0.2
cups-filesystem	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
cups-libs	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1

Package Name	Previous Version	New Version
dnf-plugin-support-info	1.7-1.amzn2023	1.8-1.amzn2023
efa	2.17.2-1.amzn2023	2.17.3-1.amzn2023
expat	2.6.3-1.amzn2023.0.2	2.6.3-1.amzn2023.0.3
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
gcc14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
inspectorssmplugin	1.0.398-1	1.0.399-1
ipython	9.5.0	9.6.0
kernel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-devel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-headers	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-libbpf	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-livepatch-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
kernel-modules-extra	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-modules-extra-common	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023

Package Name	Previous Version	New Version
kernel-tools	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
libatomic	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgcc	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgccjit	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgfortran	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgomp	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libnccl-ofi	1.16.2-1.amzn2023	1.16.3-1.amzn2023
libquadmath	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libstdc++	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
llvmlite	0.45.0	0.45.1
microcode_ctl	2.1-53.amzn2023.0.13	2.1-53.amzn2023.0.14
narwhals	2.5.0	2.7.0
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1
nvlsm	2025.06.5-1	2025.06.6-1

Package Name	Previous Version	New Version
openjpeg2	2.4.0-11.amzn2023.0.6	2.5.2-5.amzn2023.0.1
pandas	2.3.2	2.3.3
platformdirs	4.4.0	4.2.2
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
python-json-logger	3.3.0	4.0.0
python3-awscrt	0.26.1-1.amzn2023.0.1	0.27.6-1.amzn2023.0.1
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.3	1.90.0-1.amzn2023.0.1
sagemaker	2.251.1	2.252.0
selinux-policy	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
selinux-policy-targeted	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
system-release	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
typing-inspection	0.4.1	0.4.2
typing_extensions	4.12.2	4.15.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-6.1.150-174.273
nvidia-fabric-manager

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20250927

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	x86_64
kernel_version	6.1.150-174.273.amzn2023.x86_64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1

Package Name	Version
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
awscli	1.42.35	1.42.40
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
fastapi	0.116.2	0.117.1

Package Name	Previous Version	New Version
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396-1	1.0.398-1
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.18.0	0.19.2
typing_extensions	4.15.0	4.12.2
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-05-22

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Amazon Linux 2023) 20250520

Added

- Initial release of Deep Learning AMI GPU PyTorch 2.8 (Amazon Linux 2023) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate) complimented with NVIDIA Driver R570, CUDA=12.8, cuDNN=9.10, PyTorch NCCL=2.26.2, and EFA=1.40.0.

AWS Deep Learning OSS AMI GPU PyTorch 2.8 (Ubuntu 24.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/x86_64/oss-nvidia-driver-gpu-pytorch-2.8-
ubuntu-24.04/latest/ami-id \
    --query "Parameter.Value" \
    --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu
 24.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260321
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260317
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260307
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260226
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260128
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251213
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251206
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251101
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251101
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251007

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260321

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64

kernel_version	6.17.0-1009-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
prettytable-3.17.0
```

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.60	1.44.63
binutils-common	2.42-4ubuntu2.8	2.42-4ubuntu2.10
binutils-x86-64-linux-gnu	2.42-4ubuntu2.8	2.42-4ubuntu2.10
boto3	1.42.70	1.42.73
botocore	1.42.70	1.42.73
coreutils	9.4-3ubuntu6.1	9.4-3ubuntu6.2
databricks-sdk	0.100.0	0.102.0
deepdiff	8.6.1	8.6.2
docker-compose-plugin	5.1.0-1~ubuntu.24.04~noble	5.1.1-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.454	1.0.456
jsonpointer	3.0.0	3.1.0
libbinutils	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf-nobfd0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libgprofng0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libsframe1	2.42-4ubuntu2.8	2.42-4ubuntu2.10

Package Name	Previous Version	New Version
nvidia-ml-py	13.590.48	13.595.45
platformdirs	4.9.4	4.4.0
protobuf	6.33.5	6.33.6
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
snapd	2.73+ubuntu24.04.1	2.73+ubuntu24.04.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260317

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1009-aws
framework_version	2.8

python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.58	1.44.60
boto3	1.42.68	1.42.70
botocore	1.42.68	1.42.70
inspectorssmplugin	1.0.443	1.0.454
onnxruntime	1.24.3	1.24.4
platformdirs	4.4.0	4.9.4
pyasn1	0.6.2	0.6.3
snapd	2.73+ubuntu24.04	2.73+ubuntu24.04.1
vim-common	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-runtime	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-tiny	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
xxd	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10

Removed Packages

Package Name
prettytable

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64
kernel_version	6.17.0-1007-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.47	2.0.48
awscli	1.44.47	1.44.53
boto3	1.42.57	1.42.63
botocore	1.42.57	1.42.63
cachetools	7.0.1	7.0.3
charset-normalizer	3.4.4	3.4.5
databricks-sdk	0.93.0	0.96.0
docker-ce-cli	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
fastapi	0.133.1	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.8	2.3.9
google-auth	2.48.0	2.49.0

Package Name	Previous Version	New Version
graphql-core	3.2.7	3.2.8
intel-microcode	3.20250812.0ubuntu 0.24.04.1	3.20260210.0ubuntu 0.24.04.1
ipython	9.10.0	9.11.0
libnss3	3.98-1build1	3.98-1ubuntu0.1
linux-base	4.5ubuntu9+24.04.1	4.5ubuntu9+24.04.2
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-sema ntic-conventions	0.60b1	0.61b0
platformdirs	4.9.2	4.4.0
python-dotenv	1.2.1	1.2.2
python3-software-p roperties	0.99.49.3	0.99.49.4
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28

Package Name	Previous Version	New Version
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
software-properties-common	0.99.49.3	0.99.49.4
sosreport	4.9.2-0ubuntu0~24.04.1	4.10.2-0ubuntu0~24.04.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	x86_64

kernel_version	6.17.0-1007-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.17-headers-6.17.0-1007-6.17.0-1007.7~24.04.1
```

linux-aws-6.17-tools-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-headers-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-image-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-extra-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-tools-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
lustre-client-modules-6.17.0-1007-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
SQLAlchemy	2.0.46	2.0.47
Werkzeug	3.1.5	3.1.6
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
async-lru	2.1.0	2.2.0
awscli	1.44.39	1.44.47
boto3	1.42.49	1.42.57
botocore	1.42.49	1.42.57
cachetools	6.2.6	7.0.1
certifi	2026.1.4	2026.2.25

Package Name	Previous Version	New Version
cloud-init	25.2-0ubuntu1~24.04.1	25.3-0ubuntu1~24.04.1
cpp-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
cpp-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
databricks-sdk	0.88.0	0.93.0
docker-compose-plugin	5.0.2-1~ubuntu.24.04~noble	5.1.0-1~ubuntu.24.04~noble
fastapi	0.129.0	0.133.1
filelock	3.21.2	3.24.3
g++-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
g++-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-base	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-14-base	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
geventhttpclient	2.3.7	2.3.8
gfortran-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1

Package Name	Previous Version	New Version
gfortran-13-x86-64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
inspectorssmplugin	1.0.441	1.0.443
jupyterlab	4.5.4	4.5.5
libasan8	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libatomic1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcc1-0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcurl3t64-gnutls	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libcurl4t64	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libexpat1	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libexpat1-dev	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libgcc-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgcc-s1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgfortran-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1

Package Name	Previous Version	New Version
libgfortran5	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgnutls30t64	3.8.3-1.1ubuntu3.4	3.8.3-1.1ubuntu3.5
libgomp1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libhwasan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libitm1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
liblsan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libquadmath0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libssh-4	0.10.6-2ubuntu0.2	0.10.6-2ubuntu0.3
libstdc++-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libstdc++6	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libtsan2	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libubsan1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
linux-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1

Package Name	Previous Version	New Version
linux-headers-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-image-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-libc-dev	6.8.0-100.100	6.8.0-101.101
linux-modules-extra-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-tools-common	6.8.0-100.100	6.8.0-101.101
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
numba	0.63.1	0.64.0
onnx-ir	0.1.16	0.2.0
onnxruntime	1.24.1	1.24.2
pyarrow	22.0.0	23.0.1
pybind11	3.0.1	3.0.2
regex	2026.1.15	2026.2.19
scipy	1.17.0	1.17.1

Package Name	Previous Version	New Version
systemd-hwe-hwdb	255.1.6	255.1.7
typer	0.23.1	0.24.1
uvicorn	0.40.0	0.41.0
wireless-regdb	2025.07.10-0ubuntu 1~24.04.1	2025.10.07-0ubuntu 1~24.04.1

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1018
linux-aws-6.14-tools-6.14.0-1018
linux-headers-6.14.0-1018-aws
linux-image-6.14.0-1018-aws
linux-modules-6.14.0-1018-aws
linux-modules-extra-6.14.0-1018-aws
linux-tools-6.14.0-1018-aws
lustre-client-modules-6.14.0-1018-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260128

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200

operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.22	1.44.26
boto3	1.42.32	1.42.36
botocore	1.42.32	1.42.36
cryptography	46.0.3	46.0.4
docker-ce-cli	29.1.5-1~ubuntu.24.04~noble	29.2.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.5-1~ubuntu.24.04~noble	29.2.0-1~ubuntu.24.04~noble
einops	0.8.1	0.8.2
jupyterlab	4.5.2	4.5.3
libnuma1	2.0.18-1build1	2.0.18-1ubuntu0.24.04.1
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libssl-dev	3.0.13-0ubuntu3.6	3.0.13-0ubuntu3.7
libssl3t64	3.0.13-0ubuntu3.6	3.0.13-0ubuntu3.7
libxml2	2.9.14+dfsg-1.3ubuntu3.6	2.9.14+dfsg-1.3ubuntu3.7

Package Name	Previous Version	New Version
marshmallow	4.2.0	4.2.1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
platformdirs	4.5.1	4.4.0
psutil	7.2.1	7.2.2
python3-pyasn1	0.4.8-4	0.4.8-4ubuntu0.1
rich	14.2.0	14.3.1
sagemaker-core	1.0.74	1.0.75
screen	4.9.1-1build1	4.9.1-1ubuntu1
setuptools	80.10.1	80.10.2
wcwidth	0.3.0	0.5.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws

framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
docker-compose-plugin	5.0.1-1~ubuntu.24.04~noble	5.0.2-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
libgirepository-2.0-0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-0t64	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-data	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
more-itertools	10.3.0	10.8.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1

Package Name	Previous Version	New Version
nvidia-ml-py	13.590.44	13.590.48
onnx-ir	0.1.14	0.1.15
pandas	2.3.3	3.0.0
platformdirs	4.5.1	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
java-21-amazon-corretto-jdk	21.0.9.11-1	21.0.10.7-1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.17	1.44.20
boto3	1.42.27	1.42.30
botocore	1.42.27	1.42.30
docker-ce-cli	29.1.4-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.4-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.433	1.0.434
kpartx	0.9.4-5ubuntu8	0.9.4-5ubuntu8.1
pyasn1	0.6.1	0.6.2
regex	2026.1.14	2026.1.15

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251213

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.14-headers-6.14.0-1018-6.14.0-1018.18~24.04.1
linux-aws-6.14-tools-6.14.0-1018-6.14.0-1018.18~24.04.1
linux-headers-6.14.0-1018-aws-6.14.0-1018.18~24.04.1
linux-image-6.14.0-1018-aws-6.14.0-1018.18~24.04.1
linux-modules-6.14.0-1018-aws-6.14.0-1018.18~24.04.1
linux-modules-extra-6.14.0-1018-aws-6.14.0-1018.18~24.04.1
linux-tools-6.14.0-1018-aws-6.14.0-1018.18~24.04.1
lustre-client-modules-6.14.0-1018-aws-2.15.6-1fsx25
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.5	1.6.6
awscli	1.43.10	1.43.15
binutils-common	2.42-4ubuntu2.7	2.42-4ubuntu2.8

Package Name	Previous Version	New Version
binutils-x86-64-linux-gnu	2.42-4ubuntu2.7	2.42-4ubuntu2.8
boto3	1.42.4	1.42.9
botocore	1.42.4	1.42.9
debugpy	1.8.17	1.8.18
dhcpcd-base	10.0.6-1ubuntu3.1	10.0.6-1ubuntu3.2
docker-ce-cli	29.1.2-1~ubuntu.24.04~noble	29.1.3-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.2-1~ubuntu.24.04~noble	29.1.3-1~ubuntu.24.04~noble
fastapi	0.123.10	0.124.4
fonttools	4.61.0	4.61.1
inspectorssmplugin	1.0.419	1.0.428
libapparmor1	4.0.1really4.0.1-0ubuntu0.24.04.4	4.0.1really4.0.1-0ubuntu0.24.04.5
libbinutils	2.42-4ubuntu2.7	2.42-4ubuntu2.8
libctf-nobfd0	2.42-4ubuntu2.7	2.42-4ubuntu2.8
libctf0	2.42-4ubuntu2.7	2.42-4ubuntu2.8
libgprofng0	2.42-4ubuntu2.7	2.42-4ubuntu2.8
libnetplan1	1.1.2-2~ubuntu24.04.2	1.1.2-8ubuntu1~24.04.1
libpng-dev	1.6.43-5build1	1.6.43-5ubuntu0.1

Package Name	Previous Version	New Version
libpng-tools	1.6.43-5build1	1.6.43-5ubuntu0.1
libpng16-16t64	1.6.43-5build1	1.6.43-5ubuntu0.1
libsframe1	2.42-4ubuntu2.7	2.42-4ubuntu2.8
linux-aws	6.14.0-1017.17~24.04.1	6.14.0-1018.18~24.04.1
linux-headers-aws	6.14.0-1017.17~24.04.1	6.14.0-1018.18~24.04.1
linux-image-aws	6.14.0-1017.17~24.04.1	6.14.0-1018.18~24.04.1
linux-libc-dev	6.8.0-88.89	6.8.0-90.91
linux-modules-extra-aws	6.14.0-1017.17~24.04.1	6.14.0-1018.18~24.04.1
linux-tools-common	6.8.0-88.89	6.8.0-90.91
llvmlite	0.45.1	0.46.0
matplotlib	3.10.7	3.10.8
netplan-generator	1.1.2-2~ubuntu24.04.2	1.1.2-8ubuntu1~24.04.1
networkx	3.6	3.6.1
numba	0.62.1	0.63.1
nvidia-ml-py	13.580.82	13.590.44
platformdirs	4.5.1	4.2.2
python-apt-common	2.7.7ubuntu5	2.7.7ubuntu5.1

Package Name	Previous Version	New Version
python3-apt	2.7.7ubuntu5	2.7.7ubuntu5.1
python3-netplan	1.1.2-2~ubuntu24.04.2	1.1.2-8ubuntu1~24.04.1
python3-urllib3	2.0.7-1ubuntu0.2	2.0.7-1ubuntu0.3
scikit-learn	1.7.2	1.8.0
tornado	6.5.2	6.5.3
urllib3	2.6.0	2.6.2

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1017
linux-aws-6.14-tools-6.14.0-1017
linux-headers-6.14.0-1017-aws
linux-image-6.14.0-1017-aws
linux-modules-6.14.0-1017-aws
linux-modules-extra-6.14.0-1017-aws
linux-tools-6.14.0-1017-aws
lustre-client-modules-6.14.0-1017-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64
kernel_version	6.14.0-1017-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
awscli	1.43.5	1.43.10
beautifulsoup4	4.14.2	4.14.3
binutils-common	2.42-4ubuntu2.6	2.42-4ubuntu2.7
binutils-x86-64-linux-gnu	2.42-4ubuntu2.6	2.42-4ubuntu2.7
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.1-1~ubuntu.24.04~noble	29.1.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.1-1~ubuntu.24.04~noble	29.1.2-1~ubuntu.24.04~noble
docker-compose-plugin	2.40.3-1~ubuntu.24.04~noble	5.0.0-1~ubuntu.24.04~noble
fastapi	0.122.0	0.123.10

Package Name	Previous Version	New Version
fsspec	2025.10.0	2025.12.0
gir1.2-glib-2.0	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
ipython	9.7.0	9.8.0
landscape-common	24.02-0ubuntu5.6	24.02-0ubuntu5.7
libbinutils	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libctf-nobfd0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libctf0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libgirepository-2.0-0	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-0t64	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-bin	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-data	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-dev	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-dev-bin	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libgprofng0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libmysqlclient21	8.0.44-0ubuntu0.24.04.1	8.0.44-0ubuntu0.24.04.2
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
libsframe1	2.42-4ubuntu2.6	2.42-4ubuntu2.7

Package Name	Previous Version	New Version
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-fabricmanager	580.95.05-1	580.105.08-1
onnx	1.19.1	1.20.0
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
urllib3	2.5.0	2.6.0
wireless-regdb	2024.10.07-0ubuntu2~24.04.1	2025.07.10-0ubuntu1~24.04.1

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp

Package Name
aioitertools
aiosignal
frozenlist
linux-aws-6.14-headers-6.14.0-1015
linux-aws-6.14-tools-6.14.0-1015
linux-headers-6.14.0-1015-aws
linux-image-6.14.0-1015-aws
linux-modules-6.14.0-1015-aws
linux-tools-6.14.0-1015-aws
multidict
propcache
wrapt
yarl

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251101

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	x86_64

kernel_version	6.14.0-1016-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.14-headers-6.14.0-1016-6.14.0-1016.16~24.04.1
linux-aws-6.14-tools-6.14.0-1016-6.14.0-1016.16~24.04.1
linux-headers-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-image-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-modules-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-modules-extra-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-tools-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
lustre-client-modules-6.14.0-1016-aws-2.15.6-1fsx22

Updated Packages

Package Name	Previous Version	New Version
awscli	1.42.59	1.42.64
binutils-common	2.42-4ubuntu2.5	2.42-4ubuntu2.6
binutils-x86-64-linux-gnu	2.42-4ubuntu2.5	2.42-4ubuntu2.6
bleach	6.2.0	6.3.0
boto3	1.40.59	1.40.64
botocore	1.40.59	1.40.64
docker-compose-plugin	2.40.2-1~ubuntu.24.04~noble	2.40.3-1~ubuntu.24.04~noble
fastapi	0.120.0	0.120.4

Package Name	Previous Version	New Version
fsspec	2025.9.0	2025.10.0
inspectorssmplugin	1.0.402	1.0.404
lark	1.3.0	1.3.1
libbinutils	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libctf-nobfd0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libctf0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libgprofng0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libsframe1	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libssh-4	0.10.6-2ubuntu0.1	0.10.6-2ubuntu0.2
libxml2	2.9.14+dfsg-1.3ubuntu3.5	2.9.14+dfsg-1.3ubuntu3.6
linux-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
linux-headers-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
linux-image-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
linux-libc-dev	6.8.0-86.87	6.8.0-87.88
linux-modules-extra-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
linux-tools-common	6.8.0-86.87	6.8.0-87.88
lustre-client-modules-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1

Package Name	Previous Version	New Version
narwhals	2.9.0	2.10.1
onnx-ir	0.1.11	0.1.12
onnxscript	0.5.4	0.5.6
platformdirs	4.2.2	4.5.0
psutil	7.1.1	7.1.2
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.59	1.0.61
scipy	1.16.2	1.16.3
starlette	0.48.0	0.49.1
tblib	3.2.0	3.2.1
termcolor	3.1.0	3.2.0
webcolors	24.11.1	25.10.0
xyzservices	2025.4.0	2025.10.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
linux-modules-extra-6.14.0-1015-aws
lustre-client-modules-6.14.0-1015-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251101

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.8
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.9
ssm_agent_version	3.3.2299.0
kernel_version	6.14.0-1016-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Ubuntu 24.04.3 LTS
default_cuda	/usr/local/cuda-12.9/

Package Name	Version
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.14-headers-6.14.0-1016-6.14.0-1016.16~24.04.1
linux-aws-6.14-tools-6.14.0-1016-6.14.0-1016.16~24.04.1
linux-headers-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-image-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-modules-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-modules-extra-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-tools-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
lustre-client-modules-6.14.0-1016-aws-2.15.6-1fsx22
```

Updated Packages

Package Name	Previous Version	New Version
awscli	1.42.59	1.42.64
binutils-common	2.42-4ubuntu2.5	2.42-4ubuntu2.6
binutils-x86-64-linux-gnu	2.42-4ubuntu2.5	2.42-4ubuntu2.6
bleach	6.2.0	6.3.0
boto3	1.40.59	1.40.64
botocore	1.40.59	1.40.64
docker-compose-plugin	2.40.2-1~ubuntu.24.04~noble	2.40.3-1~ubuntu.24.04~noble
fastapi	0.120.0	0.120.4
fsspec	2025.9.0	2025.10.0
inspectorssmplugin	1.0.402	1.0.404
lark	1.3.0	1.3.1
libbinutils	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libctf-nobfd0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libctf0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libgprofng0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libsframe1	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libssh-4	0.10.6-2ubuntu0.1	0.10.6-2ubuntu0.2

Package Name	Previous Version	New Version
libxml2	2.9.14+dfsg-1.3ubuntu3.5	2.9.14+dfsg-1.3ubuntu3.6
linux-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
linux-headers-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
linux-image-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
linux-libc-dev	6.8.0-86.87	6.8.0-87.88
linux-modules-extra-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
linux-tools-common	6.8.0-86.87	6.8.0-87.88
lustre-client-modules-aws	6.14.0-1015.15~24.04.1	6.14.0-1016.16~24.04.1
narwhals	2.9.0	2.10.1
onnx-ir	0.1.11	0.1.12
onnxscript	0.5.4	0.5.6
platformdirs	4.2.2	4.5.0
psutil	7.1.1	7.1.2
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.59	1.0.61
scipy	1.16.2	1.16.3
starlette	0.48.0	0.49.1

Package Name	Previous Version	New Version
tblib	3.2.0	3.2.1
termcolor	3.1.0	3.2.0
webcolors	24.11.1	25.10.0
xyzservices	2025.4.0	2025.10.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
linux-modules-extra-6.14.0-1015-aws
lustre-client-modules-6.14.0-1015-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 24.04) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.8
gdr_copy	2.5

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.9
ssm_agent_version	3.3.2299.0
kernel_version	6.14.0-1014-aws
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Ubuntu 24.04.3 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	x86_64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
libkeyutils-dev-1.6.3-3build1
libmysqlclient21-8.0.43-0ubuntu0.24.04.2
libnetsnmptrapd40t64-5.9.4+dfsg-1.1ubuntu3.1
libpci-dev-3.10.0-2build1
libsensors-dev-3.6.0-9build1
libsnmp-base-5.9.4+dfsg-1.1ubuntu3.1
libsnmp-dev-5.9.4+dfsg-1.1ubuntu3.1
libsnmp-perl-5.9.4+dfsg-1.1ubuntu3.1
libsnmp40t64-5.9.4+dfsg-1.1ubuntu3.1
libudev-dev-255.4-1ubuntu8.10
libwrap0-dev-7.6.q-33
linux-aws-6.14-headers-6.14.0-1014-6.14.0-1014.14~24.04.1
linux-aws-6.14-tools-6.14.0-1014-6.14.0-1014.14~24.04.1
linux-headers-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
linux-image-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
linux-modules-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
linux-modules-extra-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
linux-tools-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
```

lustre-client-modules-6.14.0-1014-aws-2.15.6-1fsx22
lustre-client-modules-aws-6.14.0-1014.14~24.04.1
lustre-client-utils-2.15.6-1fsx22
mysql-common-1.1.0build1
nvidia-fabricmanager-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
attrs	25.3.0	25.4.0
awscli	1.42.40	1.42.46
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.40	1.40.46
botocore	1.40.40	1.40.46
certifi	2025.8.3	2025.10.5
cloud-init	25.1.4-0ubuntu0~24.04.1	25.2-0ubuntu1~24.04.1
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.24.04~noble	0.29.1-1~ubuntu.24.04~noble
docker-ce-cli	28.4.0-1~ubuntu.24.04~noble	28.5.0-1~ubuntu.24.04~noble

Package Name	Previous Version	New Version
docker-ce-rootless-extras	28.4.0-1~ubuntu.24.04~noble	28.5.0-1~ubuntu.24.04~noble
docker-compose-plugin	2.39.4-0~ubuntu.24.04~noble	2.40.0-1~ubuntu.24.04~noble
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
inspectorssmplugin	1.0.398	1.0.399
ipython	9.5.0	9.6.0
libnccl-ofi	1.16.2-1	1.16.3-1
libssl-dev	3.0.13-0ubuntu3.5	3.0.13-0ubuntu3.6
libssl3t64	3.0.13-0ubuntu3.5	3.0.13-0ubuntu3.6
libtiff6	4.5.1+git230720-4ubuntu2.3	4.5.1+git230720-4ubuntu2.4
libxnvctrl0	580.82.07-0ubuntu1	580.95.05-0ubuntu1
linux-aws	6.14.0-1013.13~24.04.1	6.14.0-1014.14~24.04.1
linux-headers-aws	6.14.0-1013.13~24.04.1	6.14.0-1014.14~24.04.1
linux-image-aws	6.14.0-1013.13~24.04.1	6.14.0-1014.14~24.04.1
linux-libc-dev	6.8.0-84.84	6.8.0-85.85

Package Name	Previous Version	New Version
linux-modules-extra-aws	6.14.0-1013.13~24.04.1	6.14.0-1014.14~24.04.1
linux-tools-common	6.8.0-84.84	6.8.0-85.85
llvmlite	0.45.0	0.45.1
narwhals	2.5.0	2.7.0
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1
nvlsm	2025.06.5-1	2025.06.6-1
open-vm-tools	12.5.0-1~ubuntu0.24.04.1	12.5.0-1~ubuntu0.24.04.2
pandas	2.3.2	2.3.3
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
python-json-logger	3.3.0	4.0.0
sagemaker	2.251.1	2.252.0
typing-inspection	0.4.1	0.4.2
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1013
linux-aws-6.14-tools-6.14.0-1013
linux-headers-6.14.0-1013-aws
linux-image-6.14.0-1013-aws
linux-modules-6.14.0-1013-aws
linux-modules-extra-6.14.0-1013-aws
linux-tools-6.14.0-1013-aws
nvidia-fabricmanager-570

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-08-14

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 22.04) 20250814

Added

- Added support for P5.4xlarge instances

Updated

- Upgraded EFA to 1.43.1

Release Date: 2025-06-03

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.8 (Ubuntu 22.04) 20250602

Added

- Initial release of Deep Learning AMI GPU PyTorch 2.8 (Ubuntu 22.04) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate) complimented with NVIDIA Driver R570, CUDA=12.8, cuDNN=9.10, PyTorch NCCL=2.26.5, and EFA=1.40.0.

Known Issues

- "With compute capability sm10.0 (Blackwell-architecture) GPUs, the FP8 datatype with scaled dot-product attention contains a deadlock that causes the kernel to hang under some circumstances, such as when the problem size is large or the GPU is running multiple kernels simultaneously. A fix is planned for a future release." [cuDNN 9.10.0 release notes]
  - For users seeking to run P6-B200 instances with FP8 data and scaled dot-product attention, please consider installing flash attention manually.

AWS Deep Learning OSS AMI GPU PyTorch 2.7 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.7-amazon-linux-2023/latest/ami-id
 && \
```

```
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux
 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260321
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260307
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260221
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260128
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251227
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251206
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251122
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251007
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20250927

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260321

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
boto3	1.42.68	1.42.73
botocore	1.42.68	1.42.73
charset-normalizer	3.4.5	3.4.6
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
inspectorssmplugin	1.0.443-1	1.0.456-1
jsonpointer	3.0.0	3.1.0
nvidia-ml-py	13.590.48	13.595.45
onnxruntime	1.24.3	1.24.4
pyasn1	0.6.2	0.6.3
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0

Package Name	Previous Version	New Version
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
uvicorn	0.41.0	0.42.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	x86_64
kernel_version	6.1.163-186.299.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0

ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.163-186.299-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-linux-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
boto3	1.42.54	1.42.63
botocore	1.42.54	1.42.63
cachetools	7.0.1	7.0.3

Package Name	Previous Version	New Version
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
container-selinux	2.242.0-1.amzn2023	2.245.0-1.amzn2023
databricks-sdk	0.91.0	0.96.0
dnf-plugin-support-info	1.10-1.amzn2023	1.11-1.amzn2023
ec2-hibinit-agent	1.0.10-1.amzn2023	1.0.10-2.amzn2023
fastapi	0.129.2	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.7	2.3.9
google-auth	2.48.0	2.49.0
graphql-core	3.2.7	3.2.8
inspectorssmplugin	1.0.441-1	1.0.443-1
ipython	9.10.0	9.11.0
jupyterlab	4.5.4	4.5.5
jxl-pixbuf-loader	0.10.3-54.amzn2023	0.10.3-55.amzn2023
kernel	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-devel	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-headers	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023

Package Name	Previous Version	New Version
kernel-libbpf	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-livepatch-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
kernel-modules-extra	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-modules-extra-common	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
kernel-tools	6.1.161-183.298.amzn2023	6.1.163-186.299.amzn2023
libjxl	0.10.3-54.amzn2023	0.10.3-55.amzn2023
libpng	1.6.37-10.amzn2023.0.10	1.6.37-10.amzn2023.0.11
libsoup3	3.6.5-55.amzn2023	3.6.5-56.amzn2023
libssh	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-config	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-devel	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libxml2	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
libxml2-devel	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
lustre-client	2.15.6-25.amzn2023	2.15.6-27.amzn2023

Package Name	Previous Version	New Version
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
platformdirs	4.9.2	4.9.4
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
scipy	1.17.0	1.17.1

Package Name	Previous Version	New Version
selinux-policy	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
selinux-policy-targeted	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
system-release	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
systemtap	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-client	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-runtime	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-dtrace	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-6.1.161-183.298

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260221

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	x86_64
kernel_version	6.1.161-183.298.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

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our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
async-lru	2.1.0	2.2.0
boto3	1.42.49	1.42.54
botocore	1.42.49	1.42.54
cachetools	6.2.6	7.0.1
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5

Package Name	Previous Version	New Version
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
databricks-sdk	0.88.0	0.91.0
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
fastapi	0.129.0	0.129.2
filelock	3.24.0	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0

Package Name	Previous Version	New Version
numba	0.63.1	0.64.0
onnxruntime	1.24.1	1.24.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
platformdirs	4.4.0	4.9.2
protobuf	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1

Package Name	Previous Version	New Version
pyarrow	22.0.0	23.0.1
pybind11	3.0.1	3.0.2
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
regex	2026.1.15	2026.2.19
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
s3fs	2026.2.0	0.4.2
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
typer	0.23.1	0.24.1
uvicorn	0.40.0	0.41.0
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

Package Name
aiobotocore
aioitertools

Package Name
wrapt

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260128

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	x86_64
kernel_version	6.1.159-182.297.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.159-182.297-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
boto3	1.42.32	1.42.36
botocore	1.42.32	1.42.36
cmake	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-data	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-filesystem	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-rpm-macros	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5

Package Name	Previous Version	New Version
containerd	2.1.5-1.amzn2023.0.3	2.1.5-1.amzn2023.0.4
cryptography	46.0.3	46.0.4
dnf-plugin-release-notification	1.2-1.amzn2023.0.2	1.3-1.amzn2023.0.1
ec2-hibinit-agent	1.0.10-0.amzn2023	1.0.10-1.amzn2023
einops	0.8.1	0.8.2
gnupg2	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
gnupg2-smime	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
highway	1.2.0-30.amzn2023.0.1	1.2.0-31.amzn2023.0.2
jupyterlab	4.5.2	4.5.3
kernel	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-devel	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-headers	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-libbpf	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-livepatch-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
kernel-modules-extra	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023

Package Name	Previous Version	New Version
kernel-modules-extra-common	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-tools	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libxml2	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
libxml2-devel	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
marshmallow	4.2.0	4.2.1
nvidia-container-toolkit	1.18.1-1	1.18.2-1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
openexr-libs	3.1.5-1.amzn2023.0.5	3.1.5-1.amzn2023.0.6
packaging	25.0	24.2
psutil	7.2.1	7.2.2
python3-pip-wheel	21.3.1-2.amzn2023.0.14	21.3.1-2.amzn2023.0.15
rich	14.2.0	14.3.1
sagemaker-core	1.0.74	1.0.75

Package Name	Previous Version	New Version
setuptools	80.10.1	80.10.2
system-release	2023.10.20260105-0 .amzn2023	2023.10.20260120-0 .amzn2023
tzdata	2025b-1.amzn2023.0.1	2025c-1.amzn2023.0.1
wcwidth	0.3.0	0.5.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
kernel-livepatch-6.1.159-181.297

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09

nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
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Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
importlib_metadata	8.0.0	8.7.1

Package Name	Previous Version	New Version
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
more-itertools	10.3.0	10.8.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
pandas	2.3.3	3.0.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2

ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
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Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8

Package Name	Previous Version	New Version
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0

ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
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Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
inspectorssmplugin	1.0.432-1	1.0.434-1
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
nvlsm	2025.06.10-1	2025.06.11-1

Package Name	Previous Version	New Version
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
tomlkit	0.13.3	0.14.0
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20260103

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08

nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.17	1.42.21
botocore	1.42.17	1.42.21

Package Name	Previous Version	New Version
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430-1	1.0.431-1
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
platformdirs	4.5.1	4.2.2
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
typing_extensions	4.12.2	4.15.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251208

compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

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Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.9	1.42.17
botocore	1.42.9	1.42.17
debugpy	1.8.18	1.8.19
fastapi	0.124.4	0.128.0
filelock	3.20.0	3.20.1
gymnasium	1.2.2	1.2.3
inspectorssmplugin	1.0.428-1	1.0.430-1
joblib	1.5.2	1.5.3
jupyterlab	4.5.0	4.5.1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
narwhals	2.13.0	2.14.0
nbclient	0.10.2	0.10.4
platformdirs	4.5.1	4.2.2
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
ruamel.yaml	0.18.16	0.18.17
sagemaker-core	1.0.71	1.0.72
soupsieve	2.8	2.8.1

Package Name	Previous Version	New Version
tornado	6.5.3	6.5.4
typer	0.20.0	0.21.0
uvicorn	0.38.0	0.40.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
beautifulsoup4	4.14.2	4.14.3
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
fastapi	0.122.0	0.124.0
fsspec	2025.10.0	2025.12.0

Package Name	Previous Version	New Version
ipython	9.7.0	9.8.0
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit	1.18.0-1	1.18.1-1
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-fabricmanager	580.95.05-1	580.105.08-1
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
typing_extensions	4.15.0	4.12.2
urllib3	2.5.0	2.6.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
multidict
propcache
wrapt
yarl

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.7

python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
boto3	1.40.74	1.41.2
botocore	1.40.74	1.41.2
fastapi	0.121.2	0.121.3
ibacm	59.amzn0-1.amzn2023	60.0-1.amzn2023
infiniband-diags	59.amzn0-1.amzn2023	60.0-1.amzn2023
infiniband-diags-compat	59.amzn0-1.amzn2023	60.0-1.amzn2023
inspectorssmplugin	1.0.412-1	1.0.419-1
jupyterlab	4.4.10	4.5.0
kernel-livepatch-repo-s3	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
libfabric-aws	2.3.1amzn1.0-1.amzn2023	2.3.1amzn2.0-1.amzn2023
libfabric-aws-devel	2.3.1amzn1.0-1.amzn2023	2.3.1amzn2.0-1.amzn2023
libibumad	59.amzn0-1.amzn2023	60.0-1.amzn2023
libibverbs	59.amzn0-1.amzn2023	60.0-1.amzn2023
libibverbs-utils	59.amzn0-1.amzn2023	60.0-1.amzn2023
libnccl-ofi	1.17.1-1.amzn2023	1.17.2-1.amzn2023

Package Name	Previous Version	New Version
librdmacm	59.amzn0-1.amzn2023	60.0-1.amzn2023
librdmacm-utils	59.amzn0-1.amzn2023	60.0-1.amzn2023
narwhals	2.11.0	2.12.0
platformdirs	4.5.0	4.2.2
python3-pyverbs	59.amzn0-1.amzn2023	60.0-1.amzn2023
rdma-core	59.amzn0-1.amzn2023	60.0-1.amzn2023
rdma-core-devel	59.amzn0-1.amzn2023	60.0-1.amzn2023
rpds-py	0.28.0	0.29.0
ruamel.yaml.clib	0.2.14	0.2.15
s3transfer	0.14.0	0.15.0
sagemaker-core	1.0.66	1.0.68
starlette	0.49.3	0.50.0
system-release	2023.9.20251110-0.amzn2023	2023.9.20251117-0.amzn2023
xyzservices	2025.10.0	2025.11.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251103

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.7
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.3050.0
kernel_version	6.1.156-177.286.amzn2023.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

annotated-doc-0.0.3
apr-util-lmdb-1.6.3-1.amzn2023.0.2
kernel-livepatch-6.1.156-177.286-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251014-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
audit-libs	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
bleach	6.2.0	6.3.0
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4

Package Name	Previous Version	New Version
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.55	1.40.65
botocore	1.40.55	1.40.65
cloudpickle	3.1.1	3.1.2
fastapi	0.119.0	0.121.0
fsspec	2025.9.0	2025.10.0
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
graphql-core	3.2.6	3.2.7
grub2-common	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-efi-x64-ec2	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-pc-modules	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools-minimal	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
inspectorssmplugin	1.0.401-1	1.0.405-1
ipywidgets	8.1.7	8.1.8

Package Name	Previous Version	New Version
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1
jupyterlab	4.4.9	4.4.10
jupyterlab_server	2.27.3	2.28.0
jupyterlab_widgets	3.0.15	3.0.16
kernel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-devel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-headers	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-libbpf	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-livepatch-repo-s3	2023.9.20251014-0.amzn2023	2023.9.20251027-0.amzn2023
kernel-modules-extra	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-modules-extra-common	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-tools	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
lark	1.3.0	1.3.1
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6

Package Name	Previous Version	New Version
libnvidia-container-tools	1.17.9-1	1.18.0-1
libnvidia-container1	1.17.9-1	1.18.0-1
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
marshmallow	4.0.1	4.1.0
matplotlib-inline	0.1.7	0.2.1
narwhals	2.8.0	2.10.1
nvidia-container-toolkit	1.17.9-1	1.18.0-1
nvidia-container-toolkit-base	1.17.9-1	1.18.0-1
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1

Package Name	Previous Version	New Version
pip	25.2	25.3
platformdirs	4.2.2	4.5.0
psutil	7.1.0	7.1.3
pyarrow	21.0.0	22.0.0
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
regex	2025.9.18	2025.11.3
rpds-py	0.27.1	0.28.0
ruamel.yaml	0.18.15	0.18.16
runc	1.3.1-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.59	1.0.62
scipy	1.16.2	1.16.3
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3

Package Name	Previous Version	New Version
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.48.0	0.49.3
system-release	2023.9.20251014-0.amzn2023	2023.9.20251027-0.amzn2023
tblib	3.1.0	3.2.1
termcolor	3.1.0	3.2.0
typer	0.19.2	0.20.0
webcolors	24.11.1	25.10.0
widgetsnbextension	4.0.14	4.0.15
xyzservices	2025.4.0	2025.10.0

Removed Packages

Package Name
kernel-livepatch-6.1.155-176.282

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.7
gdr_copy	2.5
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.3050.0
kernel_version	6.1.153-175.280.amzn2023.x86_64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-6.1.153-175.280-1.0-0.amzn2023
nvidia-fabricmanager-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
amazon-linux-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
amazon-rpm-config	228-9.amzn2023.0.1	228-10.amzn2023.0.1
amazon-ssm-agent	3.3.2299.0-1.amzn2023	3.3.3050.0-1.amzn2023
attrs	25.3.0	25.4.0
beautifulsoup4	4.14.0	4.14.2
binutils	2.41-50.amzn2023.0.3	2.41-50.amzn2023.0.4
boto3	1.40.40	1.40.46
botocore	1.40.40	1.40.46
certifi	2025.8.3	2025.10.5
container-selinux	2.233.0-1.amzn2023	2.242.0-1.amzn2023

Package Name	Previous Version	New Version
coreutils	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
coreutils-common	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
cpp14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
cryptography	46.0.1	46.0.2
cups-filesystem	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
cups-libs	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
dnf-plugin-support-info	1.7-1.amzn2023	1.8-1.amzn2023
efa	2.17.2-1.amzn2023	2.17.3-1.amzn2023
expat	2.6.3-1.amzn2023.0.2	2.6.3-1.amzn2023.0.3
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
gcc14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
inspectorssmplugin	1.0.398-1	1.0.399-1
ipython	9.5.0	9.6.0
kernel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-devel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023

Package Name	Previous Version	New Version
kernel-headers	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-libbpf	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-livepatch-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
kernel-modules-extra	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-modules-extra-common	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-tools	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
libatomic	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgcc	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgccjit	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgfortran	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgomp	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libnccl-ofi	1.16.2-1.amzn2023	1.16.3-1.amzn2023
libquadmath	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2

Package Name	Previous Version	New Version
libstdc++	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
llvmlite	0.45.0	0.45.1
microcode_ctl	2.1-53.amzn2023.0.13	2.1-53.amzn2023.0.14
narwhals	2.5.0	2.7.0
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1
nvlsm	2025.06.5-1	2025.06.6-1
openjpeg2	2.4.0-11.amzn2023.0.6	2.5.2-5.amzn2023.0.1
pandas	2.3.2	2.3.3
platformdirs	4.4.0	4.2.2
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
python-json-logger	3.3.0	4.0.0
python3-awscrt	0.26.1-1.amzn2023.0.1	0.27.6-1.amzn2023.0.1
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.3	1.90.0-1.amzn2023.0.1
sagemaker	2.251.1	2.252.0
selinux-policy	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1

Package Name	Previous Version	New Version
selinux-policy-targeted	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
system-release	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
typing-inspection	0.4.1	0.4.2
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
kernel-livepatch-6.1.150-174.273
nvidia-fabric-manager

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20250927

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	x86_64
kernel_version	6.1.150-174.273.amzn2023.x86_64
framework_version	2.7

Package Name	Version
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
MarkupSafe	3.0.2	3.0.3
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
beautifulsoup4	4.13.5	4.14.0
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396-1	1.0.398-1
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.19.1	0.19.2
uvicorn	0.36.0	0.37.0
wcwidth	0.2.13	0.2.14
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-05-22

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Amazon Linux 2023) 20250520

Added

- Initial release of Deep Learning AMI GPU PyTorch 2.7 (Amazon Linux 2023) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate) complimented with NVIDIA Driver R570, CUDA=12.8, cuDNN=9.10, PyTorch NCCL=2.26.2, and EFA=1.40.0.

AWS Deep Learning OSS AMI GPU PyTorch 2.7 (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
aws ssm get-parameter --region us-east-1 \
```

```
    --name /aws/service/deeplearning/ami/x86_64/oss-nvidia-driver-gpu-pytorch-2.7-
ubuntu-22.04/latest/ami-id \
    --query "Parameter.Value" \
    --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260322
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260308
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260222
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260128
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260118
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260104
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251228
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251207
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251123
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251109
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251009
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20250928

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260322

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1050-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-aws-6.8-tools-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-headers-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-image-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-modules-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-modules-extra-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-tools-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
lustre-client-modules-6.8.0-1050-aws-2.15.6-1fsx28
```

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.58	1.44.63
boto3	1.42.68	1.42.73
botocore	1.42.68	1.42.73
charset-normalizer	3.4.5	3.4.6
coreutils	8.32-4.1ubuntu1.2	8.32-4.1ubuntu1.3

Package Name	Previous Version	New Version
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
devscripts	2.22.1ubuntu1	2.22.1ubuntu1.2
docker-compose-plugin	5.1.0-1~ubuntu.22.04~jammy	5.1.1-1~ubuntu.22.04~jammy
inspectorssmplugin	1.0.443	1.0.456
jsonpointer	3.0.0	3.1.0
libssh-4	0.9.6-2ubuntu0.22.04.6	0.9.6-2ubuntu0.22.04.7
linux-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-headers-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-image-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-modules-extra-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
nvidia-ml-py	13.590.48	13.595.45
onnxruntime	1.24.3	1.24.4
platformdirs	4.9.4	4.4.0
protobuf	6.33.5	6.33.6
pyasn1	0.6.2	0.6.3
python3-cryptography	3.4.8-1ubuntu2.3	3.4.8-1ubuntu2.4

Package Name	Previous Version	New Version
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
snapd	2.73+ubuntu22.04	2.73+ubuntu22.04.1
uvicorn	0.41.0	0.42.0
vim-common	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-runtime	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-tiny	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
xxd	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1046
linux-aws-6.8-headers-6.8.0-1047
linux-aws-6.8-tools-6.8.0-1046
linux-aws-6.8-tools-6.8.0-1047
linux-headers-6.8.0-1046-aws
linux-headers-6.8.0-1047-aws

Package Name
linux-image-6.8.0-1046-aws
linux-image-6.8.0-1047-aws
linux-modules-6.8.0-1046-aws
linux-modules-6.8.0-1047-aws
linux-modules-extra-6.8.0-1047-aws
linux-tools-6.8.0-1046-aws
linux-tools-6.8.0-1047-aws
lustre-client-modules-6.8.0-1047-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260308

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1047-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-aws-6.8-tools-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-headers-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-image-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-extra-6.8.0-1047-aws-6.8.0-1047.50~22.04.1

linux-tools-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
lustre-client-modules-6.8.0-1047-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
awscli	1.44.44	1.44.53
boto3	1.42.54	1.42.63
botocore	1.42.54	1.42.63
cachetools	7.0.1	7.0.3
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
cpp-12	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
databricks-sdk	0.91.0	0.96.0
docker-ce-cli	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-compose-plugin	5.0.2-1~ubuntu.22.04~jammy	5.1.0-1~ubuntu.22.04~jammy
fastapi	0.129.2	0.135.1
filelock	3.24.3	3.25.0
gcc-12-base	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
geventhttpclient	2.3.7	2.3.9
git-man	2.34.1-1ubuntu1.15	2.34.1-1ubuntu1.17
google-auth	2.48.0	2.49.0
graphql-core	3.2.7	3.2.8
inspectorssmplugin	1.0.441	1.0.443
intel-microcode	3.20250812.0ubuntu0.22.04.1	3.20260210.0ubuntu0.22.04.1
ipython	9.10.0	9.11.0
jupyterlab	4.5.4	4.5.5
libasan8	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libatomic1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcc1-0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcurl3-gnutls	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libcurl4	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22

Package Name	Previous Version	New Version
libgcc-12-dev	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgcc-s1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgfortran5	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgomp1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libitm1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
liblsan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libnss3	3.98-0ubuntu0.22.04.2	3.98-0ubuntu0.22.04.3
libquadmath0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libstdc++6	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libtsan2	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libubsan1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1

Package Name	Previous Version	New Version
linux-headers-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-image-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-libc-dev	5.15.0-170.180	5.15.0-171.181
linux-modules-extra-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-tools-common	5.15.0-170.180	5.15.0-171.181
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
onnx-ir	0.1.16	0.2.0
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
platformdirs	4.4.0	4.9.4

Package Name	Previous Version	New Version
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
scipy	1.17.0	1.17.1
sosreport	4.9.2-0ubuntu0~22.04.1	4.10.2-0ubuntu0~22.04.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
wireless-regdb	2025.07.10-0ubuntu1~22.04.1	2025.10.07-0ubuntu1~22.04.1
yarl	1.22.0	1.23.0

Removed Packages

Package Name
linux-modules-extra-6.8.0-1046-aws
lustre-client-modules-6.8.0-1046-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260222

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1046-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

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Added Packages

```
linux-aws-6.8-headers-6.8.0-1046-6.8.0-1046.49~22.04.1
linux-aws-6.8-tools-6.8.0-1046-6.8.0-1046.49~22.04.1
linux-headers-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-image-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-modules-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-modules-extra-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-tools-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
lustre-client-modules-6.8.0-1046-aws-2.15.6-1fsx26
```

Updated Packages

Package Name	Previous Version	New Version
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
async-lru	2.1.0	2.2.0

Package Name	Previous Version	New Version
awscli	1.44.39	1.44.44
boto3	1.42.49	1.42.54
botocore	1.42.49	1.42.54
cachetools	6.2.6	7.0.1
cloud-init	25.2-0ubuntu1~22.04.1	25.3-0ubuntu1~22.04.1
cpp-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
databricks-sdk	0.88.0	0.91.0
fastapi	0.129.0	0.129.2
filelock	3.24.0	3.24.3
g++-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
gcc-11-base	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
gfortran-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
libasan6	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgcc-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
libgfortran-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgnutls30	3.7.3-4ubuntu1.7	3.7.3-4ubuntu1.8
libssh-4	0.9.6-2ubuntu0.22.04.5	0.9.6-2ubuntu0.22.04.6
libstdc++-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libtsan0	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-headers-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-image-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-modules-extra-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
numba	0.63.1	0.64.0
onnxruntime	1.24.1	1.24.2
pyarrow	22.0.0	23.0.1

Package Name	Previous Version	New Version
pybind11	3.0.1	3.0.2
regex	2026.1.15	2026.2.19
s3fs	2026.2.0	0.4.2
typer	0.23.1	0.24.1
uvicorn	0.40.0	0.41.0

Removed Packages

Package Name
aiobotocore
aioitertools
linux-aws-6.8-headers-6.8.0-1044
linux-aws-6.8-headers-6.8.0-1045
linux-aws-6.8-tools-6.8.0-1044
linux-aws-6.8-tools-6.8.0-1045
linux-headers-6.8.0-1044-aws
linux-headers-6.8.0-1045-aws
linux-image-6.8.0-1044-aws
linux-image-6.8.0-1045-aws
linux-modules-6.8.0-1044-aws
linux-modules-6.8.0-1045-aws

Package Name
linux-modules-extra-6.8.0-1045-aws
linux-tools-6.8.0-1044-aws
linux-tools-6.8.0-1045-aws
lustre-client-modules-6.8.0-1045-aws
wrapt

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260128

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0

ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.23	1.44.27
boto3	1.42.33	1.42.37
botocore	1.42.33	1.42.37
cryptography	46.0.3	46.0.4
docker-ce-cli	29.1.5-1~ubuntu.22.04~jammy	29.2.0-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-ce-rootless-extras	29.1.5-1~ubuntu.22.04~jammy	29.2.0-1~ubuntu.22.04~jammy
einops	0.8.1	0.8.2
jupyterlab	4.5.2	4.5.3
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libssl-dev	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
libssl3	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
marshmallow	4.2.0	4.2.1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
packaging	25.0	24.2
platformdirs	4.4.0	4.5.1
psutil	7.2.1	7.2.2
rich	14.2.0	14.3.1
sagemaker-core	1.0.74	1.0.75
screen	4.9.0-1	4.9.0-1ubuntu0.1
setuptools	80.10.1	80.10.2
wcwidth	0.3.0	0.5.0
wheel	0.45.1	0.46.3

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.23
boto3	1.42.31	1.42.33
botocore	1.42.31	1.42.33
jmespath	1.0.1	1.1.0
libxml2	2.9.13+dfsg-1ubuntu0.10	2.9.13+dfsg-1ubuntu0.11
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
packaging	24.2	25.0
python3-pyasn1	0.4.8-1	0.4.8-1ubuntu0.1
sagemaker	2.256.0	2.256.1

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
docker-compose-plugin	5.0.1-1~ubuntu.22.04~jammy	5.0.2-1~ubuntu.22.04~jammy
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1

Package Name	Previous Version	New Version
libc-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-dev-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-devtools	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6-dev	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libglib2.0-0	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-data	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
locales	2.35-0ubuntu3.11	2.35-0ubuntu3.12
more-itertools	10.3.0	10.8.0
multiprocess	0.70.18	0.70.19
onnx-ir	0.1.14	0.1.15
pandas	2.3.3	3.0.0
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
pycparser	2.23	3.0

Package Name	Previous Version	New Version
pyparsing	3.3.1	3.3.2
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6
sagemaker-core	1.0.73	1.0.74
setuptools	80.9.0	80.10.1
soupsieve	2.8.1	2.8.3
tomli	2.0.1	2.4.0
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260118

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
async-lru	2.0.5	2.1.0
awscli	1.44.15	1.44.20
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
docker-ce-cli	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
inspectorssmplugin	1.0.432	1.0.434
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpython3.10	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13

Package Name	Previous Version	New Version
libpython3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-stdlib	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libtasn1-6	4.18.0-4ubuntu0.1	4.18.0-4ubuntu0.2
nvlsm	2025.06.10-1	2025.06.11-1
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
python3-urllib3	1.26.5-1~exp1ubuntu0.4	1.26.5-1~exp1ubuntu0.5
python3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
tomlkit	0.13.3	0.14.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20260104

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.7	1.44.11
boto3	1.42.17	1.42.21
botocore	1.42.17	1.42.21
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430	1.0.431
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
platformdirs	4.5.1	4.2.2
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251228

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3

ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.15	1.44.7
boto3	1.42.9	1.42.17
botocore	1.42.9	1.42.17
containerd.io	2.2.0-2~ubuntu.22.04~jammy	2.2.1-1~ubuntu.22.04~jammy
debugpy	1.8.18	1.8.19
fastapi	0.124.4	0.128.0
filelock	3.20.0	3.20.1
gymnasium	1.2.2	1.2.3
inspectorssmplugin	1.0.428	1.0.430

Package Name	Previous Version	New Version
joblib	1.5.2	1.5.3
jupyterlab	4.5.0	4.5.1
libxnvctrl0	590.44.01-0ubuntu1	590.48.01-0ubuntu1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
narwhals	2.13.0	2.14.0
nbclient	0.10.2	0.10.4
onnx-ir	0.1.12	0.1.13
platformdirs	4.2.2	4.5.1
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
ruamel.yaml	0.18.16	0.18.17
sagemaker-core	1.0.71	1.0.72
soupsieve	2.8	2.8.1
tornado	6.5.3	6.5.4
typer	0.20.0	0.21.0
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251207

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1043-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.5	1.43.10
beautifulsoup4	4.14.2	4.14.3
binutils-common	2.38-4ubuntu2.10	2.38-4ubuntu2.11
binutils-x86-64-linux-gnu	2.38-4ubuntu2.10	2.38-4ubuntu2.11
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-compose-plugin	2.40.3-1~ubuntu.22.04~jammy	5.0.0-1~ubuntu.22.04~jammy
fastapi	0.122.0	0.124.0
fsspec	2025.10.0	2025.12.0
ipython	9.7.0	9.8.0
libbinutils	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf-nobfd0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1
linux-libc-dev	5.15.0-161.171	5.15.0-163.173
linux-tools-common	5.15.0-161.171	5.15.0-163.173
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-fabricmanager	580.95.05-1	580.105.08-1
onnx	1.19.1	1.20.0
platformdirs	4.2.2	4.5.1

Package Name	Previous Version	New Version
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
typing_extensions	4.15.0	4.12.2
urllib3	2.5.0	2.6.0
wireless-regdb	2024.10.07-0ubuntu 1~22.04.1	2025.07.10-0ubuntu 1~22.04.1

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
linux-aws-6.8-headers-6.8.0-1040
linux-aws-6.8-tools-6.8.0-1040
linux-headers-6.8.0-1040-aws

Package Name
linux-image-6.8.0-1040-aws
linux-modules-6.8.0-1040-aws
linux-tools-6.8.0-1040-aws
multidict
propcache
wrapt
yarl

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1043-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1043-6.8.0-1043.45~22.04.1
linux-aws-6.8-tools-6.8.0-1043-6.8.0-1043.45~22.04.1
linux-headers-6.8.0-1043-aws-6.8.0-1043.45~22.04.1
linux-image-6.8.0-1043-aws-6.8.0-1043.45~22.04.1
linux-modules-6.8.0-1043-aws-6.8.0-1043.45~22.04.1
linux-modules-extra-6.8.0-1043-aws-6.8.0-1043.45~22.04.1

linux-tools-6.8.0-1043-aws-6.8.0-1043.45~22.04.1
lustre-client-modules-6.8.0-1043-aws-2.15.6-1fsx25

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300061.0b1289-1	1.300062.0b1304-1
awscli	1.42.74	1.43.2
boto3	1.40.74	1.41.2
botocore	1.40.74	1.41.2
docker-ce-cli	29.0.1-1~ubuntu.22.04~jammy	29.0.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.0.1-1~ubuntu.22.04~jammy	29.0.2-1~ubuntu.22.04~jammy
fastapi	0.121.2	0.121.3
ibacm	59.amzn0-1	60.0-1
ibverbs-providers	59.amzn0-1	60.0-1
ibverbs-utils	59.amzn0-1	60.0-1
infiniband-diags	59.amzn0-1	60.0-1
inspectorssmplugin	1.0.412	1.0.419
jupyterlab	4.4.10	4.5.0
libfabric-aws-bin	2.3.1amzn1.0	2.3.1amzn2.0
libfabric-aws-dev	2.3.1amzn1.0	2.3.1amzn2.0

Package Name	Previous Version	New Version
libfabric1-aws	2.3.1amzn1.0	2.3.1amzn2.0
libibmad-dev	59.amzn0-1	60.0-1
libibmad5	59.amzn0-1	60.0-1
libibnetdisc-dev	59.amzn0-1	60.0-1
libibnetdisc5	59.amzn0-1	60.0-1
libibumad-dev	59.amzn0-1	60.0-1
libibumad3	59.amzn0-1	60.0-1
libibverbs-dev	59.amzn0-1	60.0-1
libibverbs1	59.amzn0-1	60.0-1
libmysqlclient21	8.0.43-0ubuntu0.22.04.2	8.0.44-0ubuntu0.22.04.1
libnccl-ofi	1.17.1-1	1.17.2-1
librdmacm-dev	59.amzn0-1	60.0-1
librdmacm1	59.amzn0-1	60.0-1
linux-aws	6.8.0-1041.43~22.04.1	6.8.0-1043.45~22.04.1
linux-headers-aws	6.8.0-1041.43~22.04.1	6.8.0-1043.45~22.04.1
linux-image-aws	6.8.0-1041.43~22.04.1	6.8.0-1043.45~22.04.1
linux-modules-extra-aws	6.8.0-1041.43~22.04.1	6.8.0-1043.45~22.04.1

Package Name	Previous Version	New Version
lustre-client-utils	2.15.6-1fsx21	2.15.6-1fsx25
ml_dtypes	0.5.3	0.5.4
narwhals	2.11.0	2.12.0
platformdirs	4.2.2	4.5.0
rdmacm-utils	59.amzn0-1	60.0-1
rpds-py	0.28.0	0.29.0
ruamel.yaml.clib	0.2.14	0.2.15
s3transfer	0.14.0	0.15.0
sagemaker-core	1.0.66	1.0.68
starlette	0.49.3	0.50.0
typing_extensions	4.12.2	4.15.0
xyzservices	2025.10.0	2025.11.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1041
linux-aws-6.8-tools-6.8.0-1041
linux-headers-6.8.0-1041-aws
linux-image-6.8.0-1041-aws

Package Name
linux-modules-6.8.0-1041-aws
linux-modules-extra-6.8.0-1041-aws
linux-tools-6.8.0-1041-aws
lustre-client-modules-6.8.0-1041-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251109

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.7
gdr_copy	2.5.1
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws

Package Name	Version
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ImageIO-2.37.2
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300060.0b1248-1	1.300061.0b1289-1

Package Name	Previous Version	New Version
awscli	1.42.64	1.42.69
bokeh	3.8.0	3.8.1
boto3	1.40.64	1.40.69
botocore	1.40.64	1.40.69
cloudpickle	3.1.1	3.1.2
containerd.io	1.7.28-1~ubuntu.22.04~jammy	1.7.29-1~ubuntu.22.04~jammy
dkms	3.2.1-1ubuntu2	3.2.2-1ubuntu1
docker-ce-cli	28.5.1-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.1-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy
fastapi	0.120.4	0.121.1
gymnasium	1.2.1	1.2.2
inspectorssmplugin	1.0.404	1.0.411
ipython	9.6.0	9.7.0
libxnvctrl0	580.95.05-0ubuntu1	580.105.08-0ubuntu1
narwhals	2.10.1	2.10.2
nvlsm	2025.06.6-1	2025.06.10-1
psutil	7.1.2	7.1.3
pydantic	2.12.3	2.12.4

Package Name	Previous Version	New Version
pydantic_core	2.41.4	2.41.5
regex	2025.10.23	2025.11.3
sagemaker-core	1.0.61	1.0.64
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
imageio

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20251009

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.7
gdr_copy	2.5
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
efa_version	1.43.3

Package Name	Version
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	x86_64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

- linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
- linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
- linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
- linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
- linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
- linux-modules-extra-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
- linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
- lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21
- ml_dtypes-0.5.3
- nvidia-fabricmanager-580.95.05-1
- onnx-1.19.0
- onnx-ir-0.1.10
- onnxscript-0.5.3

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
attrs	25.3.0	25.4.0
awscli	1.42.40	1.42.49
beautifulsoup4	4.14.0	4.14.2

Package Name	Previous Version	New Version
boto3	1.40.40	1.40.49
botocore	1.40.40	1.40.49
certifi	2025.8.3	2025.10.5
cloud-init	25.1.4-0ubuntu0~22.04.1	25.2-0ubuntu1~22.04.1
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.4.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.4.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
fastapi	0.117.1	0.118.2
filelock	3.19.1	3.20.0
fonttools	4.60.0	4.60.1
inspectorssmplugin	1.0.398	1.0.399
ipython	9.5.0	9.6.0
libcurl3-gnutls	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libcurl4	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21

Package Name	Previous Version	New Version
libnccl-ofi	1.16.2-1	1.16.3-1
libnss-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libpam-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libssl-dev	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libssl3	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libsystemd0	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libtiff5	4.3.0-6ubuntu0.11	4.3.0-6ubuntu0.12
libudev-dev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev1	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libxnvctrl0	580.82.07-0ubuntu1	580.95.05-0ubuntu1
linux-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-image-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-libc-dev	5.15.0-156.166	5.15.0-157.167
linux-modules-extra-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-tools-common	5.15.0-156.166	5.15.0-157.167
llvmlite	0.45.0	0.45.1

Package Name	Previous Version	New Version
lustre-client-modules-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
matplotlib	3.10.6	3.10.7
narwhals	2.5.0	2.7.0
needrestart	3.5-5ubuntu2.4	3.5-5ubuntu2.5
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1
nvlsm	2025.06.5-1	2025.06.6-1
open-vm-tools	12.3.5-3~ubuntu0.22.04.2	12.3.5-3~ubuntu0.22.04.3
pandas	2.3.2	2.3.3
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
python-json-logger	3.3.0	4.0.0
rich	14.1.0	14.2.0
sagemaker	2.251.1	2.252.0
systemd-sysv	249.11-0ubuntu3.16	249.11-0ubuntu3.17
transformer_engine	2.4.0	2.8.0
transformer_engine_cu12	2.4.0	2.8.0
transformer_engine_torch	2.4.0	2.8.0

Package Name	Previous Version	New Version
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
typing-inspection	0.4.1	0.4.2
udev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
websocket-client	1.8.0	1.9.0

Removed Packages

Package Name
linux-modules-extra-6.8.0-1039-aws
lustre-client-modules-6.8.0-1039-aws
nvidia-fabricmanager-570

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20250928

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1039-aws
framework_version	2.7

Package Name	Version
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
```

linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-extra-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
lustre-client-modules-6.8.0-1039-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
MarkupSafe	3.0.2	3.0.3
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
awscli	1.42.35	1.42.40
beautifulsoup4	4.13.5	4.14.0
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396	1.0.398

Package Name	Previous Version	New Version
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-156.166
linux-modules-extra-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-tools-common	5.15.0-153.163	5.15.0-156.166
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
platformdirs	4.4.0	4.2.2

Package Name	Previous Version	New Version
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.19.1	0.19.2
uvicorn	0.36.0	0.37.0
wcwidth	0.2.13	0.2.14

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1036-aws
linux-image-6.8.0-1036-aws
linux-modules-6.8.0-1036-aws
linux-modules-extra-6.8.0-1036-aws
linux-tools-6.8.0-1036-aws
lustre-client-modules-6.8.0-1036-aws

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-08-14

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20250814

Added

- Added support for P5.4xlarge instances

Updated

- Upgraded EFA to 1.43.1

Release Date: 2025-06-03

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.7 (Ubuntu 22.04) 20250602

Added

- Initial release of Deep Learning AMI GPU PyTorch 2.7 (Ubuntu 22.04) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate) complimented with NVIDIA Driver R570, CUDA=12.8, cuDNN=9.10, PyTorch NCCL=2.26.5, and EFA=1.40.0.

Known Issues

- "With compute capability sm10.0 (Blackwell-architecture) GPUs, the FP8 datatype with scaled dot-product attention contains a deadlock that causes the kernel to hang under some circumstances, such as when the problem size is large or the GPU is running multiple kernels simultaneously. A fix is planned for a future release." [cuDNN 9.10.0 release notes]
  - For users seeking to run P6-B200 instances with FP8 data and scaled dot-product attention, please consider installing flash attention manually.

AWS Deep Learning AMI GPU PyTorch 2.6 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS NVIDIA Driver AMI GPU PyTorch 2.6.${PATCH_VERSION} (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.6-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.? (Amazon
 Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260129
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260122

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251227
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251206
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251115
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251007
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20250927

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260129

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.10.20260120
compute_architecture	x86_64
kernel_version	6.1.159-182.297.amzn2023.x86_64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0

ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
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Added Packages

```
kernel-livepatch-6.1.159-182.297-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
boto3	1.42.32	1.42.37
botocore	1.42.32	1.42.37
cmake	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-data	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5

Package Name	Previous Version	New Version
cmake-filesystem	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
cmake-rpm-macros	3.22.2-1.amzn2023.0.4	3.22.2-1.amzn2023.0.5
containerd	2.1.5-1.amzn2023.0.3	2.1.5-1.amzn2023.0.4
cryptography	46.0.3	46.0.4
dnf-plugin-release-notification	1.2-1.amzn2023.0.2	1.3-1.amzn2023.0.1
docker	7.1.0	25.0.14-1.amzn2023.0.1
ec2-hibinit-agent	1.0.10-0.amzn2023	1.0.10-1.amzn2023
gnupg2	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
gnupg2-smime	2.3.7-1.amzn2023.0.5	2.3.7-1.amzn2023.0.6
graphene	3.4.3	1.10.6-9.amzn2023.0.1
highway	1.2.0-30.amzn2023.0.1	1.2.0-31.amzn2023.0.2
jupyterlab	4.5.2	4.5.3
kernel	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-devel	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-headers	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023

Package Name	Previous Version	New Version
kernel-libbpf	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-livepatch-repo-s3	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
kernel-modules-extra	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-modules-extra-common	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
kernel-tools	6.1.159-181.297.amzn2023	6.1.159-182.297.amzn2023
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libxml2	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
libxml2-devel	2.10.4-1.amzn2023.0.13	2.10.4-1.amzn2023.0.15
marshmallow	4.2.0	4.2.1
nvidia-container-toolkit	1.18.1-1	1.18.2-1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
openexr-libs	3.1.5-1.amzn2023.0.5	3.1.5-1.amzn2023.0.6
packaging	24.2	26.0

Package Name	Previous Version	New Version
protobuf	6.31.1	3.19.6-1.amzn2023.0.1
psutil	7.2.1	7.2.2
python3-pip-wheel	21.3.1-2.amzn2023.0.14	21.3.1-2.amzn2023.0.15
rich	14.2.0	14.3.1
sagemaker-core	1.0.74	1.0.75
setuptools	80.10.1	80.10.2
system-release	2023.10.20260105-0.amzn2023	2023.10.20260120-0.amzn2023
tzdata	2025.3	2025c-1.amzn2023.0.1
wcwidth	0.3.0	0.5.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
kernel-livepatch-6.1.159-181.297

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
more-itertools	10.3.0	10.8.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
packaging	24.2	25.0
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.5.1
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2

Package Name	Previous Version	New Version
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.6.0

python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0

Package Name	Previous Version	New Version
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
platformdirs	4.2.2	4.5.1
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.10.20260105

compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
inspectorssmplugin	1.0.432-1	1.0.434-1
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
nvlsm	2025.06.10-1	2025.06.11-1
prometheus_client	0.23.1	0.24.1
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0
typing_extensions	4.15.0	4.12.2
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260103

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.17	1.42.21
botocore	1.42.17	1.42.21
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430-1	1.0.431-1
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
platformdirs	4.5.1	4.2.2
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.9	1.42.17
botocore	1.42.9	1.42.17
debugpy	1.8.18	1.8.19
fastapi	0.124.4	0.128.0
filelock	3.20.0	3.20.1
gymnasium	1.2.2	1.2.3
inspectorssmplugin	1.0.428-1	1.0.430-1
joblib	1.5.2	1.5.3
jupyterlab	4.5.0	4.5.1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0

Package Name	Previous Version	New Version
narwhals	2.13.0	2.14.0
nbclient	0.10.2	0.10.4
platformdirs	4.2.2	4.5.1
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
ruamel.yaml	0.18.16	0.18.17
sagemaker-core	1.0.71	1.0.72
soupsieve	2.8	2.8.1
tornado	6.5.3	6.5.4
typer	0.20.0	0.21.0
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	x86_64

kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
beautifulsoup4	4.14.2	4.14.3
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
docker	7.1.0	25.0.13-1.amzn2023.0.2
fastapi	0.122.0	0.124.0
fsspec	2025.10.0	2025.12.0
graphene	3.4.3	1.10.6-9.amzn2023.0.1
ipython	9.7.0	9.8.0
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit	1.18.0-1	1.18.1-1
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-fabricmanager	580.95.05-1	580.105.08-1
protobuf	6.31.1	3.19.6-1.amzn2023.0.1

Package Name	Previous Version	New Version
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
tzdata	2025.2	2025b-1.amzn2023.0.1
urllib3	2.5.0	2.6.0

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
multidict
propcache
wrapt
yarl

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251115

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.9.20251110
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ImageIO-2.37.2
kernel-livepatch-6.1.158-178.288-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300059.1-1.amzn2023	1.300060.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
annotated-doc	0.0.3	0.0.4
asttokens	3.0.0	3.0.1
bind-libs	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-license	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4

Package Name	Previous Version	New Version
bind-utils	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bokeh	3.8.0	3.8.1
boto3	1.40.65	1.40.74
botocore	1.40.65	1.40.74
certifi	2025.10.5	2025.11.12
containerd	2.1.4-1.amzn2023.0.1	2.1.4-1.amzn2023.0.2
dkms	3.2.1-182.amzn2023	3.3.0-183.amzn2023
dnf-plugin-support-info	1.8-1.amzn2023	1.9-1.amzn2023
docker	25.0.13-1.amzn2023.0.1	25.0.13-1.amzn2023.0.2
dwz	0.14-6.amzn2023.0.2	0.16-2.amzn2023.0.1
fastapi	0.121.0	0.121.2
gymnasium	1.2.1	1.2.2
ibacm	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
infiniband-diags	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
infiniband-diags-compat	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
inspectorssmplugin	1.0.405-1	1.0.412-1
ipython	9.6.0	9.7.0

Package Name	Previous Version	New Version
kernel	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-devel	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-headers	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-libbpf	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-livepatch-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
kernel-modules-extra	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-modules-extra-common	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-tools	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
libcap	2.73-1.amzn2023.0.3	2.73-1.amzn2023.0.4
libfabric-aws	2.1.0amzn5.0-1.amzn2023	2.3.1amzn1.0-1.amzn2023
libfabric-aws-devel	2.1.0amzn5.0-1.amzn2023	2.3.1amzn1.0-1.amzn2023
libibumad	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libibverbs	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libibverbs-utils	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023

Package Name	Previous Version	New Version
libnccl-ofi	1.16.3-1.amzn2023	1.17.1-1.amzn2023
librdmacm	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
librdmacm-utils	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libssh	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-config	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-devel	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
lustre-client	2.15.6-21.amzn2023	2.15.6-23.amzn2023
lz4-libs	1.9.4-1.amzn2023.0.2	1.9.4-1.amzn2023.0.3
narwhals	2.10.1	2.11.0
nvlsm	2025.06.6-1	2025.06.10-1
openmpi50-aws	5.0.6-11	5.0.8amzn1-11
pam	1.5.1-8.amzn2023.0.6	1.5.1-8.amzn2023.0.7
prettytable	3.16.0	3.17.0
pydantic	2.12.3	2.9.2
pydantic_core	2.41.4	2.23.4
python3	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-libs	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4

Package Name	Previous Version	New Version
python3-pyverbs	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
rdma-core	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
rdma-core-devel	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
runc	1.3.2-2.amzn2023.0.1	1.3.3-2.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
sagemaker-core	1.0.62	1.0.66
system-release	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
tblib	3.2.1	3.2.2
zipp	3.23.0	3.19.2

Removed Packages

Package Name
imageio
kernel-livepatch-6.1.156-177.286

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251103

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.6.0

Package Name	Version
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.6
ssm_agent_version	3.3.3050.0
kernel_version	6.1.156-177.286.amzn2023.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.6/
compute_architecture	x86_64

Package Changes from Previous Release

Note

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specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
apr-util-lmdb-1.6.3-1.amzn2023.0.2
kernel-livepatch-6.1.156-177.286-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
audit-libs	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
bleach	6.2.0	6.3.0
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.59	1.40.65

Package Name	Previous Version	New Version
botocore	1.40.59	1.40.65
cloudpickle	3.1.1	3.1.2
fastapi	0.120.0	0.121.0
fsspec	2025.9.0	2025.10.0
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
graphql-core	3.2.6	3.2.7
grub2-common	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-efi-x64-ec2	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-pc-modules	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools-minimal	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
inspectorssmplugin	1.0.402-1	1.0.405-1
ipywidgets	8.1.7	8.1.8
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1
jupyterlab_widgets	3.0.15	3.0.16
kernel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023

Package Name	Previous Version	New Version
kernel-devel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-headers	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-libbpf	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-livepatch-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
kernel-modules-extra	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-modules-extra-common	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-tools	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
lark	1.3.0	1.3.1
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3

Package Name	Previous Version	New Version
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
marshmallow	4.0.1	4.1.0
narwhals	2.9.0	2.10.1
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1
psutil	7.1.2	7.1.3
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
regex	2025.10.23	2025.11.3
runc	1.3.1-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.59	1.0.62
scipy	1.16.2	1.16.3

Package Name	Previous Version	New Version
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.48.0	0.49.3
system-release	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
tblib	3.2.0	3.2.1
webcolors	24.11.1	25.10.0
widgetsnbextension	4.0.14	4.0.15
xyzservices	2025.4.0	2025.10.0

Removed Packages

Package Name
kernel-livepatch-6.1.155-176.282

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.6.0
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.6
ssm_agent_version	3.3.3050.0
kernel_version	6.1.153-175.280.amzn2023.x86_64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.6/
compute_architecture	x86_64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-6.1.153-175.280-1.0-0.amzn2023
nvidia-fabricmanager-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
amazon-linux-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
amazon-rpm-config	228-9.amzn2023.0.1	228-10.amzn2023.0.1
amazon-ssm-agent	3.3.2299.0-1.amzn2023	3.3.3050.0-1.amzn2023
attrs	25.3.0	25.4.0
beautifulsoup4	4.14.0	4.14.2
binutils	2.41-50.amzn2023.0.3	2.41-50.amzn2023.0.4
boto3	1.40.40	1.40.46
botocore	1.40.40	1.40.46
certifi	2025.8.3	2025.10.5
container-selinux	2.233.0-1.amzn2023	2.242.0-1.amzn2023

Package Name	Previous Version	New Version
coreutils	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
coreutils-common	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
cpp14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
cryptography	46.0.1	46.0.2
cups-filesystem	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
cups-libs	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
dnf-plugin-support-info	1.7-1.amzn2023	1.8-1.amzn2023
efa	2.17.2-1.amzn2023	2.17.3-1.amzn2023
expat	2.6.3-1.amzn2023.0.2	2.6.3-1.amzn2023.0.3
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
gcc14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
inspectorssmplugin	1.0.398-1	1.0.399-1
ipython	9.5.0	9.6.0
kernel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-devel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023

Package Name	Previous Version	New Version
kernel-headers	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-libbpf	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-livepatch-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
kernel-modules-extra	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-modules-extra-common	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-tools	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
libatomic	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgcc	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgccjit	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgfortran	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgomp	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libnccl-ofi	1.16.2-1.amzn2023	1.16.3-1.amzn2023
libquadmath	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2

Package Name	Previous Version	New Version
libstdc++	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
llvmlite	0.45.0	0.45.1
microcode_ctl	2.1-53.amzn2023.0.13	2.1-53.amzn2023.0.14
narwhals	2.5.0	2.7.0
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1
nvlsm	2025.06.5-1	2025.06.6-1
openjpeg2	2.4.0-11.amzn2023.0.6	2.5.2-5.amzn2023.0.1
pandas	2.3.2	2.3.3
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
python-json-logger	3.3.0	4.0.0
python3-awscrt	0.26.1-1.amzn2023.0.1	0.27.6-1.amzn2023.0.1
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.3	1.90.0-1.amzn2023.0.1
sagemaker	2.251.1	2.252.0
selinux-policy	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
selinux-policy-targeted	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1

Package Name	Previous Version	New Version
system-release	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
typing-inspection	0.4.1	0.4.2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
kernel-livepatch-6.1.150-174.273
nvidia-fabric-manager

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20250927

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	x86_64
kernel_version	6.1.150-174.273.amzn2023.x86_64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08

Package Name	Version
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
MarkupSafe	3.0.2	3.0.3

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
beautifulsoup4	4.13.5	4.14.0
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
fastapi	0.116.2	0.117.1
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396-1	1.0.398-1
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
platformdirs	4.2.2	4.4.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.19.1	0.19.2
uvicorn	0.36.0	0.37.0
wcwidth	0.2.13	0.2.14
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-21

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Amazon Linux 2023) 20250220

Added

- Initial release of the Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6 for Amazon Linux 2023
  - As of PyTorch2.6, Pytorch has deprecated support for Conda. As a result, Pytorch 2.6 and above will move to using Python Virtual Environments. To activate the pytorch venv, please use source /opt/pytorch/bin/activate

AWS Deep Learning AMI GPU PyTorch 2.6 (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.${PATCH_VERSION} (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.6-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.? (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260129
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260103
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251227
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251206
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251018
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251007
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20250927
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20250920

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260129

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.22	1.44.27
boto3	1.42.32	1.42.37
botocore	1.42.32	1.42.37
cryptography	46.0.3	46.0.4
docker-ce-cli	29.1.5-1~ubuntu.22.04~jammy	29.2.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.5-1~ubuntu.22.04~jammy	29.2.0-1~ubuntu.22.04~jammy
einops	0.8.1	0.8.2
jupyterlab	4.5.2	4.5.3
libnvidia-container-tools	1.18.1-1	1.18.2-1
libnvidia-container1	1.18.1-1	1.18.2-1
libssl-dev	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
libssl3	3.0.2-0ubuntu1.20	3.0.2-0ubuntu1.21
libxml2	2.9.13+dfsg-1ubuntu0.10	2.9.13+dfsg-1ubuntu0.11

Package Name	Previous Version	New Version
marshmallow	4.2.0	4.2.1
nvidia-container-toolkit-base	1.18.1-1	1.18.2-1
psutil	7.2.1	7.2.2
python3-pyasn1	0.4.8-1	0.4.8-1ubuntu0.1
rich	14.2.0	14.3.1
sagemaker-core	1.0.74	1.0.75
screen	4.9.0-1	4.9.0-1ubuntu0.1
setuptools	80.10.1	80.10.2
wcwidth	0.3.0	0.5.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0

python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
jmespath	1.0.1	1.1.0
libc-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
locales	2.35-0ubuntu3.11	2.35-0ubuntu3.12
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
packaging	25.0	24.2
platformdirs	4.4.0	4.5.1
sagemaker	2.256.0	2.256.1

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
docker-compose-plugin	5.0.1-1~ubuntu.22.04~jammy	5.0.2-1~ubuntu.22.04~jammy
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
libc-dev-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-devtools	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6-dev	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libglib2.0-0	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-data	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8

Package Name	Previous Version	New Version
libglib2.0-dev	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
more-itertools	10.3.0	10.8.0
multiprocess	0.70.18	0.70.19
packaging	24.2	25.0
pandas	2.3.3	3.0.0
pathos	0.3.4	0.3.5
platformdirs	4.5.1	4.4.0
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6
sagemaker-core	1.0.73	1.0.74
setuptools	80.9.0	80.10.1
soupsieve	2.8.1	2.8.3
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
awscli	1.44.15	1.44.20
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
docker-ce-cli	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.432	1.0.434
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpython3.10	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-stdlib	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libtasn1-6	4.18.0-4ubuntu0.1	4.18.0-4ubuntu0.2
nvlsm	2025.06.10-1	2025.06.11-1
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
python3-urllib3	1.26.5-1~exp1ubuntu0.4	1.26.5-1~exp1ubuntu0.5

Package Name	Previous Version	New Version
python3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
tomlkit	0.13.3	0.14.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260103

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6

gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.7	1.44.11
boto3	1.42.17	1.42.21

Package Name	Previous Version	New Version
botocore	1.42.17	1.42.21
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430	1.0.431
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.15	1.44.7
boto3	1.42.9	1.42.17
botocore	1.42.9	1.42.17
containerd.io	2.2.0-2~ubuntu.22.04~jammy	2.2.1-1~ubuntu.22.04~jammy
debugpy	1.8.18	1.8.19
fastapi	0.124.4	0.128.0
filelock	3.20.0	3.20.1
gymnasium	1.2.2	1.2.3
inspectorssmplugin	1.0.428	1.0.430
joblib	1.5.2	1.5.3
jupyterlab	4.5.0	4.5.1
libxnvctrl0	590.44.01-0ubuntu1	590.48.01-0ubuntu1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
narwhals	2.13.0	2.14.0
nbclient	0.10.2	0.10.4
platformdirs	4.2.2	4.5.1
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1

Package Name	Previous Version	New Version
ruamel.yaml	0.18.16	0.18.17
sagemaker-core	1.0.71	1.0.72
soupsieve	2.8	2.8.1
tornado	6.5.3	6.5.4
typer	0.20.0	0.21.0
uvicorn	0.38.0	0.40.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1043-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08

default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.5	1.43.10

Package Name	Previous Version	New Version
beautifulsoup4	4.14.2	4.14.3
binutils-common	2.38-4ubuntu2.10	2.38-4ubuntu2.11
binutils-x86-64-linux-gnu	2.38-4ubuntu2.10	2.38-4ubuntu2.11
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-compose-plugin	2.40.3-1~ubuntu.22.04~jammy	5.0.0-1~ubuntu.22.04~jammy
fastapi	0.122.0	0.124.0
fsspec	2025.10.0	2025.12.0
ipython	9.7.0	9.8.0
libbinutils	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf-nobfd0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1

Package Name	Previous Version	New Version
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1
linux-libc-dev	5.15.0-161.171	5.15.0-163.173
linux-tools-common	5.15.0-161.171	5.15.0-163.173
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-fabricmanager	580.95.05-1	580.105.08-1
platformdirs	4.2.2	4.5.1
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
urllib3	2.5.0	2.6.0
wireless-regdb	2024.10.07-0ubuntu1~22.04.1	2025.07.10-0ubuntu1~22.04.1

Removed Packages

Package Name
aiobotocore

Package Name
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
linux-aws-6.8-headers-6.8.0-1040
linux-aws-6.8-tools-6.8.0-1040
linux-headers-6.8.0-1040-aws
linux-image-6.8.0-1040-aws
linux-modules-6.8.0-1040-aws
linux-tools-6.8.0-1040-aws
multidict
propcache
wrapt
yarl

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251018

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en

operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1040-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.3
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300059.0b1207-1	1.300060.0b1248-1
arrow	1.3.0	1.4.0
awscli	1.42.46	1.42.55
boto3	1.40.46	1.40.55
botocore	1.40.46	1.40.55
charset-normalizer	3.4.3	3.4.4
containerd.io	1.7.28-0~ubuntu.22.04~jammy	1.7.28-1~ubuntu.22.04~jammy
cryptography	46.0.2	46.0.3
docker-ce-cli	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-compose-plugin	2.40.0-1~ubuntu.22.04~jammy	2.40.1-1~ubuntu.22.04~jammy
fastapi	0.118.0	0.119.0
filelock	3.19.1	3.20.0
idna	3.10	3.11

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.399	1.0.401
jupyter_core	5.8.1	5.9.1
libnss-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libpam-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libsystemd0	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev-dev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev1	249.11-0ubuntu3.16	249.11-0ubuntu3.17
linux-libc-dev	5.15.0-157.167	5.15.0-160.170
linux-tools-common	5.15.0-157.167	5.15.0-160.170
matplotlib	3.10.6	3.10.7
narwhals	2.7.0	2.8.0
pillow	11.3.0	12.0.0
platformdirs	4.2.2	4.5.0
pydantic	2.12.0	2.12.3
pydantic_core	2.41.1	2.41.4
referencing	0.36.2	0.37.0
rich	14.1.0	14.2.0
sagemaker	2.252.0	2.253.1
schema	0.7.7	0.7.8
shap	0.48.0	0.49.1

Package Name	Previous Version	New Version
snapd	2.68.5+ubuntu22.04.1	2.71+ubuntu22.04
systemd-sysv	249.11-0ubuntu3.16	249.11-0ubuntu3.17
udev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
uvicorn	0.37.0	0.38.0
websocket-client	1.8.0	1.9.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1039
linux-aws-6.8-tools-6.8.0-1039
linux-headers-6.8.0-1039-aws
linux-image-6.8.0-1039-aws
linux-modules-6.8.0-1039-aws
linux-tools-6.8.0-1039-aws
types-python-dateutil

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.6.0
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.6
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.6/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-extra-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21
nvidia-fabricmanager-580.95.05-1
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
attrs	25.3.0	25.4.0

Package Name	Previous Version	New Version
awscli	1.42.40	1.42.46
beautifulsoup4	4.14.0	4.14.2
boto3	1.40.40	1.40.46
botocore	1.40.40	1.40.46
certifi	2025.8.3	2025.10.5
cloud-init	25.1.4-0ubuntu0~22.04.1	25.2-0ubuntu1~22.04.1
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
inspectorssmplugin	1.0.398	1.0.399
ipython	9.5.0	9.6.0
libcurl3-gnutls	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21

Package Name	Previous Version	New Version
libcurl4	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libnccl-ofi	1.16.2-1	1.16.3-1
libssl-dev	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libssl3	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libtiff5	4.3.0-6ubuntu0.11	4.3.0-6ubuntu0.12
libxnvctrl0	580.82.07-0ubuntu1	580.95.05-0ubuntu1
linux-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-image-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-libc-dev	5.15.0-156.166	5.15.0-157.167
linux-modules-extra-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-tools-common	5.15.0-156.166	5.15.0-157.167
llvmlite	0.45.0	0.45.1
lustre-client-modules-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
narwhals	2.5.0	2.7.0
needrestart	3.5-5ubuntu2.4	3.5-5ubuntu2.5
nltk	3.9.1	3.9.2

Package Name	Previous Version	New Version
numba	0.62.0	0.62.1
nvlsm	2025.06.5-1	2025.06.6-1
open-vm-tools	12.3.5-3~ubuntu0.22.04.2	12.3.5-3~ubuntu0.22.04.3
pandas	2.3.2	2.3.3
platformdirs	4.2.2	4.4.0
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
python-json-logger	3.3.0	4.0.0
sagemaker	2.251.1	2.252.0
typing-inspection	0.4.1	0.4.2
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
linux-modules-extra-6.8.0-1039-aws
lustre-client-modules-6.8.0-1039-aws
nvidia-fabricmanager-570

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20250927

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1039-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-extra-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
lustre-client-modules-6.8.0-1039-aws-2.15.6-1fsx21
```

Updated Packages

Package Name	Previous Version	New Version
MarkupSafe	3.0.2	3.0.3
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0

Package Name	Previous Version	New Version
awscli	1.42.35	1.42.40
beautifulsoup4	4.13.5	4.14.0
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396	1.0.398
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1

Package Name	Previous Version	New Version
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-156.166
linux-modules-extra-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-tools-common	5.15.0-153.163	5.15.0-156.166
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.19.1	0.19.2
typing_extensions	4.15.0	4.12.2
uvicorn	0.36.0	0.37.0
wcwidth	0.2.13	0.2.14
zipp	3.19.2	3.23.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1036-aws
linux-image-6.8.0-1036-aws
linux-modules-6.8.0-1036-aws
linux-modules-extra-6.8.0-1036-aws
linux-tools-6.8.0-1036-aws
lustre-client-modules-6.8.0-1036-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20250920

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1036-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python

Package Name	Version
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.3	1.6.4
awscli	1.42.30	1.42.35
boto3	1.40.30	1.40.35
botocore	1.40.30	1.40.35
click	8.2.1	8.3.0
cryptography	45.0.7	46.0.1
debugpy	1.8.16	1.8.17
fastapi	0.116.1	0.117.1
fonttools	4.59.2	4.60.0
inspectorssmplugin	1.0.395	1.0.396
landscape-common	23.02-0ubuntu1~22.04.4	23.02-0ubuntu1~22.04.6
libcpanel-json-xs-perl	4.27-1ubuntu0.1	4.27-1ubuntu0.2
libjson-xs-perl	4.030-1build3	4.040-0ubuntu0.22.04.1
libmysqlclient21	8.0.43-0ubuntu0.22.04.1	8.0.43-0ubuntu0.22.04.2
llvmlite	0.44.0	0.45.0
nbclassic	1.3.2	1.3.3
numba	0.61.2	0.62.0

Package Name	Previous Version	New Version
prometheus_client	0.22.1	0.23.1
psutil	7.0.0	7.1.0
regex	2025.9.1	2025.9.18
starlette	0.47.3	0.48.0
systemd-hwe-hwdb	249.11.5	249.11.6
typer	0.17.4	0.19.1
typing_extensions	4.15.0	4.12.2
uvicorn	0.35.0	0.36.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-21

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.6.0 (Ubuntu 22.04) 20250220

Added

- Initial release of Deep Learning AMI GPU PyTorch 2.6 (Ubuntu 22.04) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate), complimented with NVIDIA Driver R570, CUDA=12.6, cuDNN=9.7, PyTorch NCCL=2.21.5, and EFA=1.38.0.

- Starting with PyTorch2.6, Pytorch has deprecated support for Conda (see official announcement). As a result, Pytorch 2.6 and above will move to using Python Virtual Environments. Tto activate the pytorch venv, please activate using source /opt/pytorch/bin/activate

ARM64 PyTorch DLAMI Release Notes

Below are the Release notes for ARM64 PyTorch DLAMIs:

GPU

- AWS Deep Learning OSS AMI ARM64 AMI GPU Pytorch 2.10 (Amazon Linux 2023)
- AWS Deep Learning OSS AMI ARM64 AMI GPU Pytorch 2.10 (Ubuntu 24.04)
- AWS Deep Learning OSS AMI ARM64 AMI GPU Pytorch 2.9 (Amazon Linux 2023)
- AWS Deep Learning OSS AMI ARM64 AMI GPU Pytorch 2.9 (Ubuntu 24.04)
- AWS Deep Learning ARM64 AMI GPU PyTorch 2.8 (Amazon Linux 2023)
- AWS Deep Learning ARM64 AMI GPU PyTorch 2.8 (Ubuntu 24.04)
- AWS Deep Learning ARM64 AMI GPU PyTorch 2.7 (Amazon Linux 2023)
- AWS Deep Learning ARM64 AMI GPU PyTorch 2.7 (Ubuntu 22.04)
- AWS Deep Learning ARM64 AMI GPU PyTorch 2.6 (Amazon Linux 2023)
- AWS Deep Learning ARM64 AMI GPU PyTorch 2.6 (Ubuntu 22.04)

AWS Neuron

- Refer to the Neuron DLAMI User Guide

AWS Deep Learning OSS AMI ARM64 AMI GPU Pytorch 2.10 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- Starting with PyTorch 2.9, CUDA and related libraries are now located within the Pytorch virtual environment found in `/opt/pytorch/cuda` instead of being installed at the system level. This change reduces the image size while maintaining full CUDA functionality. Please ensure that the PyTorch virtual environment is activated to utilize CUDA using `source /opt/pytorch/bin/activate`

AMI Name Format

- Deep Learning ARM64 OSS Nvidia Driver AMI GPU PyTorch 2.10 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.10-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU Pytorch 2.10 (Amazon
 Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

AWS Deep Learning OSS AMI ARM64 AMI GPU Pytorch 2.10 (Ubuntu 24.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- Starting with PyTorch 2.9, CUDA and related libraries are now located within the Pytorch virtual environment found in `/opt/pytorch/cuda` instead of being installed at the system level. This change reduces the image size while maintaining full CUDA functionality. Please ensure that the PyTorch virtual environment is activated to utilize CUDA using `source /opt/pytorch/bin/activate`

AMI Name Format

- Deep Learning ARM64 OSS Nvidia Driver AMI GPU PyTorch 2.10 (Ubuntu 24.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/arm64/oss-nvidia-driver-gpu-pytorch-2.10-
ubuntu-24.04/latest/ami-id \
    --query "Parameter.Value" \
    --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.10 (Ubuntu
```

```
24.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
&CreationDate))[:1].ImageId' --output text
```

Latest Releases

Archive

AWS Deep Learning OSS AMI ARM64 AMI GPU Pytorch 2.9 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- Starting with PyTorch 2.9, CUDA and related libraries are now located within the Pytorch virtual environment found in `/opt/pytorch/cuda` instead of being installed at the system level. This change reduces the image size while maintaining full CUDA functionality. Please ensure that the PyTorch virtual environment is activated to utilize CUDA using `source /opt/pytorch/bin/activate`

AMI Name Format

- Deep Learning ARM64 OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.9-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU Pytorch 2.9 (Amazon
 Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260320
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260306
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260227
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260220
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260123
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260122
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260121
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260116
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260102
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20251226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20251216
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20251124

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64

kernel_version	6.12.73-95.123.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0

Package Name	Previous Version	New Version
attrs	25.4.0	26.1.0
awscli	1.44.57	1.44.62
boto3	1.42.67	1.42.72
botocore	1.42.67	1.42.72
charset-normalizer	3.4.5	3.4.6
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
fonttools	4.62.0	4.62.1
gdrcopy	2.5.1-1	2.5.2-1
gdrcopy-devel	2.5.1-1	2.5.2-1
gdrcopy-kmod	2.5.1-1dkms	2.5.2-1dkms
inspectorssmplugin	1.0.443-1	1.0.455-1
onnxruntime	1.24.3	1.24.4
pyasn1	0.6.2	0.6.3
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
uvicorn	0.41.0	0.42.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.47	2.0.48
awscli	1.44.48	1.44.52
boto3	1.42.58	1.42.62
botocore	1.42.58	1.42.62
cachetools	7.0.1	7.0.3
databricks-sdk	0.94.0	0.96.0
fastapi	0.133.1	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.8	2.3.9
graphql-core	3.2.7	3.2.8
ipython	9.10.0	9.11.0
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1

Package Name	Previous Version	New Version
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
SQLAlchemy	2.0.46	2.0.47
async-lru	2.1.0	2.2.0
awscli	1.44.43	1.44.48
boto3	1.42.53	1.42.58
botocore	1.42.53	1.42.58
cachetools	6.2.6	7.0.1
certifi	2026.1.4	2026.2.25
databricks-sdk	0.91.0	0.94.0
fastapi	0.129.0	0.133.1
geventhttpclient	2.3.7	2.3.8
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
inspectorssmplugin	1.0.441-1	1.0.443-1
jupyterlab	4.5.4	4.5.5
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3

Package Name	Previous Version	New Version
pyarrow	22.0.0	23.0.1
scipy	1.17.0	1.17.1
typer	0.24.0	0.24.1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.68-92.122-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
awscli	1.44.38	1.44.43

Package Name	Previous Version	New Version
boto3	1.42.48	1.42.53
botocore	1.42.48	1.42.53
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
databricks-sdk	0.88.0	0.91.0
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
filelock	3.21.2	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
inspectorssmplugin	1.0.440-1	1.0.441-1
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
kernel6.12	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-devel	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-headers	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023

Package Name	Previous Version	New Version
kernel6.12-libbpf	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-modules-extra	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-modules-extra-common	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-tools	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
numba	0.63.1	0.64.0
onnxruntime	1.24.1	1.24.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5

Package Name	Previous Version	New Version
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
platformdirs	4.4.0	4.9.2
protobuf	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1
pybind11	3.0.1	3.0.2
pydantic	2.12.5	2.9.2
pydantic_core	2.41.5	2.23.4
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
python3.12	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
python3.12-devel	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4

Package Name	Previous Version	New Version
python3.12-libs	3.12.12-2.amzn2023.0.3	3.12.12-2.amzn2023.0.4
regex	2026.1.15	2026.2.19
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
setuptools	82.0.0	81.0.0
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
typer	0.23.0	0.24.0
uvicorn	0.40.0	0.41.0
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

Package Name
kernel-livepatch-6.12.66-88.122

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.22	1.44.23
boto3	1.42.32	1.42.33
botocore	1.42.32	1.42.33
platformdirs	4.4.0	4.5.1
wcwidth	0.3.0	0.3.1
wheel	0.45.1	0.46.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0

Package Name	Previous Version	New Version
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
more-itertools	10.3.0	10.8.0
nvidia-imex	580.95.05-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
packaging	24.2	25.0
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.5.1
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
inflect
jaraco.collections

Package Name
typeguard

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.19	1.44.21
boto3	1.42.29	1.42.31
botocore	1.42.29	1.42.31
dill	0.4.0	0.4.1
inspectorssmplugin	1.0.433-1	1.0.434-1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
pyasn1	0.6.1	0.6.2
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3

Package Name	Previous Version	New Version
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
awscli	1.44.14	1.44.19
boto3	1.42.24	1.42.29
botocore	1.42.24	1.42.29
filelock	3.20.2	3.20.3
fsspec	2025.12.0	2026.1.0
inspectorssmplugin	1.0.432-1	1.0.433-1
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
nvidia-nvml-dev	13.1.68	13.1.115
prometheus_client	0.23.1	0.24.1

Package Name	Previous Version	New Version
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3

ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.4
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.6	1.44.9
boto3	1.42.16	1.42.19
botocore	1.42.16	1.42.19
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430-1	1.0.431-1
json5	0.12.1	0.13.0
psutil	7.2.0	7.2.1

Package Name	Previous Version	New Version
ruamel.yaml	0.18.17	0.19.0
termcolor	3.2.0	3.3.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3

ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.3	1.44.6
boto3	1.42.13	1.42.16
botocore	1.42.13	1.42.16
fastapi	0.125.0	0.127.0
inspectorssmplugin	1.0.429-1	1.0.430-1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
nbclient	0.10.2	0.10.4
psutil	7.1.3	7.2.0

Package Name	Previous Version	New Version
pyparsing	3.2.5	3.3.1
typer	0.20.0	0.21.0
uvicorn	0.38.0	0.40.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Amazon Linux 2023) 20251216

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
ebs_volume_type	gp3

ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Amazon Linux 2023) 20251124

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.1.158-178.288.amzn2023.aarch64

framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

AWS Deep Learning OSS AMI ARM64 AMI GPU Pytorch 2.9 (Ubuntu 24.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- Starting with PyTorch 2.9, CUDA and related libraries are now located within the Pytorch virtual environment found in `/opt/pytorch/cuda` instead of being installed at the system level. This change reduces the image size while maintaining full CUDA functionality. Please ensure that the PyTorch virtual environment is activated to utilize CUDA using `source /opt/pytorch/bin/activate`

AMI Name Format

- Deep Learning ARM64 OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/arm64/oss-nvidia-driver-gpu-pytorch-2.9-
ubuntu-24.04/latest/ami-id \
    --query "Parameter.Value" \
    --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu
 24.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260320
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260317
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260306
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260227
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260123
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260122
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260121
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260116
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260102
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20251226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20251216
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20251125

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1009-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09

nvidia_container_toolkit_version	1.19.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
prettytable-3.17.0
```

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.60	1.44.62
binutils-aarch64-linux-gnu	2.42-4ubuntu2.8	2.42-4ubuntu2.10

Package Name	Previous Version	New Version
binutils-common	2.42-4ubuntu2.8	2.42-4ubuntu2.10
boto3	1.42.70	1.42.72
botocore	1.42.70	1.42.72
coreutils	9.4-3ubuntu6.1	9.4-3ubuntu6.2
databricks-sdk	0.100.0	0.102.0
deepdiff	8.6.1	8.6.2
inspectorssmplugin	1.0.454	1.0.455
libbinutils	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf-nobfd0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libgprofng0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libsframe1	2.42-4ubuntu2.8	2.42-4ubuntu2.10
platformdirs	4.9.4	4.4.0
protobuf	6.33.5	6.33.6
sagemaker-core	2.5.1	2.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
snapd	2.73+ubuntu24.04.1	2.73+ubuntu24.04.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260317

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1009-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_container_toolkit_version	1.19.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.58	1.44.60
boto3	1.42.68	1.42.70
botocore	1.42.68	1.42.70
databricks-sdk	0.99.0	0.100.0
inspectorssmplugin	1.0.443	1.0.454
libssh-4	0.10.6-2ubuntu0.3	0.10.6-2ubuntu0.4
onnxruntime	1.24.3	1.24.4
platformdirs	4.9.4	4.4.0
pyasn1	0.6.2	0.6.3
python3-cryptography	41.0.7-4ubuntu0.3	41.0.7-4ubuntu0.4
snapd	2.73+ubuntu24.04	2.73+ubuntu24.04.1
uvicorn	0.41.0	0.42.0
vim-common	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-runtime	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-tiny	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
xxd	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10

Removed Packages

Package Name
prettytable

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1007-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.47	2.0.48
awscli	1.44.48	1.44.52
boto3	1.42.58	1.42.62
botocore	1.42.58	1.42.62
cachetools	7.0.1	7.0.3
databricks-sdk	0.94.0	0.96.0
docker-ce-cli	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
fastapi	0.133.1	0.135.1

Package Name	Previous Version	New Version
filelock	3.24.3	3.25.0
geventhttpclient	2.3.8	2.3.9
graphql-core	3.2.7	3.2.8
ipython	9.10.0	9.11.0
libnss3	3.98-1build1	3.98-1ubuntu0.1
linux-base	4.5ubuntu9+24.04.1	4.5ubuntu9+24.04.2
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
platformdirs	4.9.2	4.9.4
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0

Package Name	Previous Version	New Version
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
sosreport	4.9.2-0ubuntu0~24.04.1	4.10.2-0ubuntu0~24.04.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1007-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09

nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.47	1.44.48
boto3	1.42.57	1.42.58
botocore	1.42.57	1.42.58
databricks-sdk	0.93.0	0.94.0
platformdirs	4.9.2	4.4.0

Package Name	Previous Version	New Version
python3-software-properties	0.99.49.3	0.99.49.4
software-properties-common	0.99.49.3	0.99.49.4

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1007-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.17-headers-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-aws-6.17-tools-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-headers-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-image-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-tools-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
lustre-client-modules-6.17.0-1007-aws-2.15.6-1fsx28
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
SQLAlchemy	2.0.46	2.0.47
Werkzeug	3.1.5	3.1.6

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
async-lru	2.1.0	2.2.0
awscli	1.44.38	1.44.47
boto3	1.42.48	1.42.57
botocore	1.42.48	1.42.57
cachetools	6.2.6	7.0.1
certifi	2026.1.4	2026.2.25
cloud-init	25.2-0ubuntu1~24.04.1	25.3-0ubuntu1~24.04.1
cpp-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
cpp-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
databricks-sdk	0.88.0	0.93.0
docker-compose-plugin	5.0.2-1~ubuntu.24.04~noble	5.1.0-1~ubuntu.24.04~noble
fastapi	0.129.0	0.133.1
filelock	3.21.1	3.24.3
g++-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
g++-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1

Package Name	Previous Version	New Version
gcc-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-base	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-14-base	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
geventhttpclient	2.3.7	2.3.8
gfortran-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gfortran-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
inspectorssmplugin	1.0.440	1.0.443
jupyterlab	4.5.4	4.5.5
libasan8	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libatomic1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcc1-0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libcurl3t64-gnutls	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libcurl4t64	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7

Package Name	Previous Version	New Version
libexpat1	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libexpat1-dev	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libgcc-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgcc-s1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgfortran-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgfortran5	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgnutls30t64	3.8.3-1.1ubuntu3.4	3.8.3-1.1ubuntu3.5
libgomp1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libhwasan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libitm1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
liblsan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libssh-4	0.10.6-2ubuntu0.2	0.10.6-2ubuntu0.3
libstdc++-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libstdc++6	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1

Package Name	Previous Version	New Version
libtsan2	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libubsan1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
linux-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-headers-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-image-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-libc-dev	6.8.0-100.100	6.8.0-101.101
linux-tools-common	6.8.0-100.100	6.8.0-101.101
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
numba	0.63.1	0.64.0
onnxruntime	1.24.1	1.24.2
platformdirs	4.7.0	4.9.2
pyarrow	22.0.0	23.0.1

Package Name	Previous Version	New Version
pybind11	3.0.1	3.0.2
pydantic	2.12.5	2.9.2
pydantic_core	2.41.5	2.23.4
regex	2026.1.15	2026.2.19
safety-schemas	0.0.16	0.0.14
scipy	1.17.0	1.17.1
setuptools	82.0.0	81.0.0
systemd-hwe-hwdb	255.1.6	255.1.7
typer	0.23.0	0.24.1
uvicorn	0.40.0	0.41.0

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1018
linux-aws-6.14-tools-6.14.0-1018
linux-headers-6.14.0-1018-aws
linux-image-6.14.0-1018-aws
linux-modules-6.14.0-1018-aws
linux-tools-6.14.0-1018-aws
lustre-client-modules-6.14.0-1018-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.22	1.44.23
boto3	1.42.32	1.42.33
botocore	1.42.32	1.42.33
packaging	25.0	24.2
wcwidth	0.3.0	0.3.1
wheel	0.45.1	0.46.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python

nvidia_driver	580.126.09
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
docker-compose-plugin	5.0.1-1~ubuntu.24.04~noble	5.0.2-1~ubuntu.24.04~noble

Package Name	Previous Version	New Version
gir1.2-glib-2.0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
libgirepository-2.0-0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-0t64	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-data	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libxml2	2.9.14+dfsg-1.3ubuntu3.6	2.9.14+dfsg-1.3ubuntu3.7
more-itertools	10.3.0	10.8.0
nvidia-imex	580.95.05-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.4.0
pycparser	2.23	3.0

Package Name	Previous Version	New Version
pyparsing	3.3.1	3.3.2
python3-pyasn1	0.4.8-4	0.4.8-4ubuntu0.1
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws

framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.19	1.44.21

Package Name	Previous Version	New Version
boto3	1.42.29	1.42.31
botocore	1.42.29	1.42.31
dill	0.4.0	0.4.1
docker-ce-cli	29.1.4-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.4-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.433	1.0.434
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
kpartx	0.9.4-5ubuntu8	0.9.4-5ubuntu8.1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
platformdirs	4.5.1	4.2.2
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
pyasn1	0.6.1	0.6.2
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
awscli	1.44.14	1.44.19
boto3	1.42.24	1.42.29
botocore	1.42.24	1.42.29
docker-ce-cli	29.1.3-1~ubuntu.24.04~noble	29.1.4-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.3-1~ubuntu.24.04~noble	29.1.4-1~ubuntu.24.04~noble
filelock	3.20.2	3.20.3
fsspec	2025.12.0	2026.1.0
inspectorssmplugin	1.0.432	1.0.433
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
klibc-utils	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libheif-plugin-aomdec	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2

Package Name	Previous Version	New Version
libheif-plugin-aomenc	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif-plugin-libde265	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif1	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libklibc	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libpng-dev	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpng-tools	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpng16-16t64	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpython3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-stdlib	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12t64	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libtasn1-6	4.19.0-3ubuntu0.24.04.1	4.19.0-3ubuntu0.24.04.2
nvidia-nvml-dev	13.1.68	13.1.115
prometheus_client	0.23.1	0.24.1
python3-urllib3	2.0.7-1ubuntu0.3	2.0.7-1ubuntu0.6
python3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-venv	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10

Package Name	Previous Version	New Version
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme

ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.4
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.6	1.44.9
boto3	1.42.16	1.42.19
botocore	1.42.16	1.42.19
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430	1.0.431
json5	0.12.1	0.13.0

Package Name	Previous Version	New Version
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.0
termcolor	3.2.0	3.3.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.3	1.44.6
boto3	1.42.13	1.42.16
botocore	1.42.13	1.42.16
fastapi	0.125.0	0.127.0
inspectorssmplugin	1.0.429	1.0.430
libxnvctrl0	590.44.01-0ubuntu1	590.48.01-0ubuntu1
marshmallow	4.1.1	4.1.2

Package Name	Previous Version	New Version
mistune	3.1.4	3.2.0
nbclient	0.10.2	0.10.4
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
typer	0.20.0	0.21.0
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.9 (Ubuntu 24.04) 20251216

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.17.2

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.9 (Ubuntu 24.04) 20251125

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en, P6-B200
operating_system	Ubuntu 24.04.3 LTS

compute_architecture	aarch64
kernel_version	6.14.0-1017-aws
framework_version	2.9
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

No packages were updated in this release.

Removed Packages

No packages were removed in this release.

Archive

AWS Deep Learning ARM64 AMI GPU PyTorch 2.8 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.8-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon
```

```
Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
&CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260320
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260306
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260227
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260220
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260123
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260122
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260121
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260116
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260102
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251206
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251114
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251107
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251003
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20250926

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64
kernel_version	6.12.73-95.123.amzn2023.aarch64

framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0

Package Name	Previous Version	New Version
attrs	25.4.0	26.1.0
boto3	1.42.67	1.42.72
botocore	1.42.67	1.42.72
charset-normalizer	3.4.5	3.4.6
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
fonttools	4.62.0	4.62.1
gdrcopy	2.5.1-1	2.5.2-1
gdrcopy-devel	2.5.1-1	2.5.2-1
gdrcopy-kmod	2.5.1-1dkms	2.5.2-1dkms
inspectorssmplugin	1.0.443-1	1.0.455-1
nvidia-ml-py	13.590.48	13.595.45
onnxruntime	1.24.3	1.24.4
platformdirs	4.4.0	4.9.4
pyasn1	0.6.2	0.6.3
sagemaker-core	2.5.1	2.6.0
sagemaker-train	1.5.0	1.6.0
uvicorn	0.41.0	0.42.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.47	2.0.48
boto3	1.42.58	1.42.62
botocore	1.42.58	1.42.62
cachetools	7.0.1	7.0.3
databricks-sdk	0.94.0	0.96.0
fastapi	0.133.1	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.8	2.3.9
graphql-core	3.2.7	3.2.8
ipython	9.10.0	9.11.0
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
onnxruntime	1.24.2	1.24.3

Package Name	Previous Version	New Version
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
platformdirs	4.4.0	4.9.4
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
SQLAlchemy	2.0.46	2.0.47
async-lru	2.1.0	2.2.0
boto3	1.42.53	1.42.58
botocore	1.42.53	1.42.58
cachetools	6.2.6	7.0.1
certifi	2026.1.4	2026.2.25
databricks-sdk	0.91.0	0.94.0
fastapi	0.129.0	0.133.1
geventhttpclient	2.3.7	2.3.8
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
inspectorssmplugin	1.0.441-1	1.0.443-1
jupyterlab	4.5.4	4.5.5
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
narwhals	2.16.0	2.17.0

Package Name	Previous Version	New Version
nltk	3.9.2	3.9.3
packaging	25.0	26.0
platformdirs	4.4.0	4.9.2
pyarrow	22.0.0	23.0.1
scipy	1.17.0	1.17.1
typer	0.24.0	0.24.1

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.68-92.122-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
boto3	1.42.48	1.42.53
botocore	1.42.48	1.42.53
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
databricks-sdk	0.88.0	0.91.0
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
filelock	3.21.1	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
inspectorssmplugin	1.0.440-1	1.0.441-1
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023

Package Name	Previous Version	New Version
kernel6.12	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-devel	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-headers	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-libbpf	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-modules-extra	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-modules-extra-common	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-tools	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
numba	0.63.1	0.64.0
onnxruntime	1.24.1	1.24.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16

Package Name	Previous Version	New Version
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
packaging	26.0	25.0
platformdirs	4.7.0	4.9.2
protobuf	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1
pybind11	3.0.1	3.0.2
pydantic	2.12.5	2.9.2

Package Name	Previous Version	New Version
pydantic_core	2.41.5	2.23.4
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
regex	2026.1.15	2026.2.19
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
setuptools	82.0.0	81.0.0
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
typer	0.23.0	0.24.0
uvicorn	0.40.0	0.41.0
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

Package Name
kernel-livepatch-6.12.66-88.122

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260123

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.32	1.42.33
botocore	1.42.32	1.42.33
wcwidth	0.3.0	0.3.1
wheel	0.45.1	0.46.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.8

python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32

Package Name	Previous Version	New Version
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
more-itertools	10.3.0	10.8.0
nvidia-imex	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
packaging	24.2	25.0
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3

ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
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Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
boto3	1.42.29	1.42.31
botocore	1.42.29	1.42.31
dill	0.4.0	0.4.1
inspectorssmplugin	1.0.433-1	1.0.434-1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8

Package Name	Previous Version	New Version
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3

ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.24	1.42.29
botocore	1.42.24	1.42.29
filelock	3.20.2	3.20.3
fsspec	2025.12.0	2026.1.0
inspectorssmplugin	1.0.432-1	1.0.433-1
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
prometheus_client	0.23.1	0.24.1

Package Name	Previous Version	New Version
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0
typing_extensions	4.12.2	4.15.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ruamel.yaml.clibz-0.3.4
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.16	1.42.19
botocore	1.42.16	1.42.19
fastapi	0.127.0	0.128.0
inspectorssmplugin	1.0.430-1	1.0.431-1

Package Name	Previous Version	New Version
json5	0.12.1	0.13.0
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.0
termcolor	3.2.0	3.3.0
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.13	1.42.16
botocore	1.42.13	1.42.16
fastapi	0.125.0	0.127.0
inspectorssmplugin	1.0.429-1	1.0.430-1
marshmallow	4.1.1	4.1.2

Package Name	Previous Version	New Version
mistune	3.1.4	3.2.0
nbclient	0.10.2	0.10.4
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
typer	0.20.0	0.21.0
typing_extensions	4.12.2	4.15.0
uvicorn	0.38.0	0.40.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08

default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
anyio	4.11.0	4.12.0
beautifulsoup4	4.14.2	4.14.3

Package Name	Previous Version	New Version
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
fastapi	0.122.0	0.123.10
fonttools	4.60.1	4.61.0
fsspec	2025.10.0	2025.12.0
gdrcopy	2.5-1	2.5.1-1
gdrcopy-devel	2.5-1	2.5.1-1
gdrcopy-kmod	2.5-1dkms	2.5.1-1dkms
ipython	9.7.0	9.8.0
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit	1.18.0-1	1.18.1-1
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-imex	580.95.05-1	580.105.08-1
rpds-py	0.29.0	0.30.0
s3transfer	0.15.0	0.16.0

Package Name	Previous Version	New Version
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
typing_extensions	4.12.2	4.15.0
urllib3	2.5.0	2.6.0

Removed Packages

Package Name
sniffio

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251114

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.9.20251110
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9

gdr_copy	2.5
nvidia_container_toolkit_version	1.18.0
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
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Added Packages

```
kernel-livepatch-6.12.55-74.119-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300059.1-1.amzn2023	1.300060.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
annotated-doc	0.0.3	0.0.4

Package Name	Previous Version	New Version
bokeh	3.8.0	3.8.1
boto3	1.40.68	1.40.73
botocore	1.40.68	1.40.73
certifi	2025.10.5	2025.11.12
containerd	2.1.4-1.amzn2023.0.1	2.1.4-1.amzn2023.0.2
dkms	3.2.1-182.amzn2023	3.3.0-183.amzn2023
dnf-plugin-support-info	1.8-1.amzn2023	1.9-1.amzn2023
docker	25.0.13-1.amzn2023.0.1	25.0.13-1.amzn2023.0.2
dwz	0.14-6.amzn2023.0.2	0.16-2.amzn2023.0.1
fastapi	0.121.0	0.121.2
inspectorssmplugin	1.0.410-1	1.0.411-1
kernel-livepatch-repo-s3	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
kernel6.12	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-devel	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-headers	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-libbpf	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023

Package Name	Previous Version	New Version
kernel6.12-modules-extra	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-modules-extra-common	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-tools	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
libcap	2.73-1.amzn2023.0.3	2.73-1.amzn2023.0.4
libssh	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-config	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-devel	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
lustre-client	2.15.6-21.amzn2023	2.15.6-23.amzn2023
lz4-libs	1.9.4-1.amzn2023.0.2	1.9.4-1.amzn2023.0.3
narwhals	2.10.2	2.11.0
pam	1.5.1-8.amzn2023.0.6	1.5.1-8.amzn2023.0.7
pydantic	2.12.4	2.9.2
pydantic_core	2.41.5	2.23.4
python3	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-libs	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4

Package Name	Previous Version	New Version
runc	1.3.2-2.amzn2023.0.1	1.3.3-2.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
sagemaker-core	1.0.63	1.0.65
system-release	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
tblib	3.2.1	3.2.2
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
kernel-livepatch-6.12.53-69.119

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.8
gdr_copy	2.5
supported_ec2_instances	G5g
ebs_volume_type	gp3
nvidia_driver	580.95.05

Package Name	Version
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.9
ssm_agent_version	3.3.3050.0
kernel_version	6.12.53-69.119.amzn2023.aarch64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251105
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
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Added Packages

```
ImageIO-2.37.2
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
bind-libs	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-license	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-utils	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
boto3	1.40.64	1.40.68
botocore	1.40.64	1.40.68
gymnasium	1.2.1	1.2.2
inspectorssmplugin	1.0.405-1	1.0.410-1
ipython	9.6.0	9.7.0
kernel-livepatch-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
narwhals	2.10.1	2.10.2
platformdirs	4.2.2	4.5.0
pydantic	2.12.3	2.12.4
pydantic_core	2.41.4	2.41.5
regex	2025.10.23	2025.11.3
sagemaker-core	1.0.62	1.0.63

Package Name	Previous Version	New Version
system-release	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
imageio

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20251003

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.8
gdr_copy	2.5
supported_ec2_instances	G5g
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python

Package Name	Version
nvidia_cuda_stack	/usr/local/cuda-12.9
ssm_agent_version	3.3.3050.0
kernel_version	6.12.46-66.121.amzn2023.aarch64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.2
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-6.12.46-66.121-1.0-0.amzn2023
nvidia-imex-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
amazon-linux-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
amazon-rpm-config	228-9.amzn2023.0.1	228-10.amzn2023.0.1
amazon-ssm-agent	3.3.2299.0-1.amzn2023	3.3.3050.0-1.amzn2023
beautifulsoup4	4.13.5	4.14.2
binutils	2.41-50.amzn2023.0.3	2.41-50.amzn2023.0.4
boto3	1.40.39	1.40.44
botocore	1.40.39	1.40.44
container-selinux	2.233.0-1.amzn2023	2.242.0-1.amzn2023
coreutils	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
coreutils-common	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
cpp14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
cryptography	46.0.1	46.0.2
cups-filesystem	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
cups-libs	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1

Package Name	Previous Version	New Version
dnf-plugin-support-info	1.7-1.amzn2023	1.8-1.amzn2023
expat	2.6.3-1.amzn2023.0.2	2.6.3-1.amzn2023.0.3
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
gcc14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
inspectorssmplugin	1.0.396-1	1.0.398-1
ipython	9.5.0	9.6.0
jupyterlab	4.4.8	4.4.9
kernel-livepatch-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
kernel6.12	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-devel	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-headers	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-libbpf	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-modules-extra	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-modules-extra-common	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023

Package Name	Previous Version	New Version
kernel6.12-tools	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
libatomic	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgcc	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgccjit	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgfortran	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgomp	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libstdc++	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
llvmlite	0.45.0	0.45.1
narwhals	2.5.0	2.6.0
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1
openjpeg2	2.4.0-11.amzn2023.0.6	2.5.2-5.amzn2023.0.1
pandas	2.3.2	2.3.3
python3-awscrt	0.26.1-1.amzn2023.0.1	0.27.6-1.amzn2023.0.1

Package Name	Previous Version	New Version
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.3	1.90.0-1.amzn2023.0.1
sagemaker	2.251.1	2.252.0
selinux-policy	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
selinux-policy-targeted	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
system-release	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
typing-inspection	0.4.1	0.4.2
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
kernel-livepatch-6.12.40-64.114
libasan8
libubsan
nvidia-imex-570

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	aarch64
kernel_version	6.12.40-64.114.amzn2023.aarch64
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do

not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
boto3	1.40.34	1.40.39
botocore	1.40.34	1.40.39
fastapi	0.116.2	0.117.1
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.395-1	1.0.396-1
jupyterlab	4.4.7	4.4.8
lark	1.2.2	1.3.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.17.4	0.19.2

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-05-22

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) 20250521

Added

- Initial release of Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Amazon Linux 2023) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate) complimented with NVIDIA Driver R570, CUDA=12.8, cuDNN=9.10, and PyTorch NCCL=2.26.2

AWS Deep Learning ARM64 AMI GPU PyTorch 2.8 (Ubuntu 24.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.8-ubuntu-24.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu
 24.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260321
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260317
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260307
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260217
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260122
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260121
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260116

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260102
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251205
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251114
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251107
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251003
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20250926

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260321

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1009-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.19.0
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
prettytable-3.17.0
```

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.60	1.44.63
binutils-aarch64-linux-gnu	2.42-4ubuntu2.8	2.42-4ubuntu2.10
binutils-common	2.42-4ubuntu2.8	2.42-4ubuntu2.10
boto3	1.42.70	1.42.73
botocore	1.42.70	1.42.73
databricks-sdk	0.100.0	0.102.0
deepdiff	8.6.1	8.6.2

Package Name	Previous Version	New Version
docker-compose-plugin	5.1.0-1~ubuntu.24.04~noble	5.1.1-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.454	1.0.456
jsonpointer	3.0.0	3.1.0
libbinutils	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf-nobfd0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libctf0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libgprofng0	2.42-4ubuntu2.8	2.42-4ubuntu2.10
libsframe1	2.42-4ubuntu2.8	2.42-4ubuntu2.10
nvidia-ml-py	13.590.48	13.595.45
protobuf	6.33.5	6.33.6
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
snapd	2.73+ubuntu24.04.1	2.73+ubuntu24.04.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260317

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1009-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.19.0
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.17-headers-6.17.0-1009-6.17.0-1009.9~24.04.2
linux-aws-6.17-tools-6.17.0-1009-6.17.0-1009.9~24.04.2
linux-headers-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
linux-image-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
linux-modules-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
linux-tools-6.17.0-1009-aws-6.17.0-1009.9~24.04.2
lustre-client-modules-6.17.0-1009-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.58	1.44.60
boto3	1.42.68	1.42.70
botocore	1.42.68	1.42.70
charset-normalizer	3.4.5	3.4.6
databricks-sdk	0.99.0	0.100.0
inspectorssmplugin	1.0.443	1.0.454
libssh-4	0.10.6-2ubuntu0.3	0.10.6-2ubuntu0.4
linux-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
linux-headers-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2

Package Name	Previous Version	New Version
linux-image-aws	6.17.0-1007.7~24.04.1	6.17.0-1009.9~24.04.2
onnxruntime	1.24.3	1.24.4
pyasn1	0.6.2	0.6.3
python3-cryptography	41.0.7-4ubuntu0.3	41.0.7-4ubuntu0.4
snapd	2.73+ubuntu24.04	2.73+ubuntu24.04.1
uvicorn	0.41.0	0.42.0
vim-common	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-runtime	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
vim-tiny	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10
xxd	9.1.0016-1ubuntu7.9	9.1.0016-1ubuntu7.10

Removed Packages

Package Name
lustre-client-modules-6.17.0-1007-aws
prettytable

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260307

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200

operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1007-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.47	2.0.48
awscli	1.44.47	1.44.53
boto3	1.42.57	1.42.63
botocore	1.42.57	1.42.63
cachetools	7.0.1	7.0.3
charset-normalizer	3.4.4	3.4.5
databricks-sdk	0.93.0	0.96.0
docker-ce-cli	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.2.1-1~ubuntu.24.04~noble	29.3.0-1~ubuntu.24.04~noble
fastapi	0.133.1	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.8	2.3.9
google-auth	2.48.0	2.49.0
graphql-core	3.2.7	3.2.8
ipython	9.10.0	9.11.0
libnss3	3.98-1build1	3.98-1ubuntu0.1
linux-base	4.5ubuntu9+24.04.1	4.5ubuntu9+24.04.2

Package Name	Previous Version	New Version
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
platformdirs	4.4.0	4.9.4
python-dotenv	1.2.1	1.2.2
python3-software-properties	0.99.49.3	0.99.49.4
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0

Package Name	Previous Version	New Version
software-properties-common	0.99.49.3	0.99.49.4
sosreport	4.9.2-0ubuntu0~24.04.1	4.10.2-0ubuntu0~24.04.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
yarl	1.22.0	1.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.17.0-1007-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.18.2

ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.17-headers-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-aws-6.17-tools-6.17.0-1007-6.17.0-1007.7~24.04.1
linux-headers-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-image-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-modules-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
linux-tools-6.17.0-1007-aws-6.17.0-1007.7~24.04.1
lustre-client-modules-6.17.0-1007-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
Flask	3.1.2	3.1.3
SQLAlchemy	2.0.46	2.0.47
Werkzeug	3.1.5	3.1.6
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
async-lru	2.1.0	2.2.0
awscli	1.44.40	1.44.47
boto3	1.42.50	1.42.57
botocore	1.42.50	1.42.57
cachetools	6.2.6	7.0.1
certifi	2026.1.4	2026.2.25
cloud-init	25.2-0ubuntu1~24.04.1	25.3-0ubuntu1~24.04.1
databricks-sdk	0.88.0	0.93.0
docker-compose-plugin	5.0.2-1~ubuntu.24.04~noble	5.1.0-1~ubuntu.24.04~noble
fastapi	0.129.0	0.133.1
filelock	3.24.2	3.24.3
geventhttpclient	2.3.7	2.3.8
greenlet	3.3.1	3.3.2

Package Name	Previous Version	New Version
gunicorn	23.0.0	25.1.0
inspectorssmplugin	1.0.441	1.0.443
jupyterlab	4.5.4	4.5.5
libcurl3t64-gnutls	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libcurl4t64	8.5.0-2ubuntu10.6	8.5.0-2ubuntu10.7
libssh-4	0.10.6-2ubuntu0.2	0.10.6-2ubuntu0.3
linux-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-headers-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-image-aws	6.14.0-1018.18~24.04.1	6.17.0-1007.7~24.04.1
linux-libc-dev	6.8.0-100.100	6.8.0-101.101
linux-tools-common	6.8.0-100.100	6.8.0-101.101
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
numba	0.63.1	0.64.0

Package Name	Previous Version	New Version
onnxruntime	1.24.1	1.24.2
packaging	25.0	26.0
platformdirs	4.4.0	4.9.2
pyarrow	22.0.0	23.0.1
pybind11	3.0.1	3.0.2
regex	2026.1.15	2026.2.19
scipy	1.17.0	1.17.1
systemd-hwe-hwdb	255.1.6	255.1.7
typer	0.24.0	0.24.1

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1018
linux-aws-6.14-tools-6.14.0-1018
linux-headers-6.14.0-1018-aws
linux-image-6.14.0-1018-aws
linux-modules-6.14.0-1018-aws
linux-tools-6.14.0-1018-aws
lustre-client-modules-6.14.0-1018-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260217

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.4 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
GitPython-3.1.46
Mako-1.3.10
PyNaCl-1.6.2
SQLAlchemy-2.0.46
aiohappyeyeballs-2.6.1
aiohttp-3.13.3
aiosignal-1.4.0
alembic-1.18.4
bcrypt-5.0.0
brotli-1.2.0
cachetools-6.2.6
databricks-sdk-0.88.0
deepdiff-8.6.1
flask-cors-6.0.2
flatbuffers-25.12.19
frozenlist-1.8.0
gevent-25.9.1
geventhttpclient-2.3.7
```

gitdb-4.0.12

google-auth-2.48.0

greenlet-3.3.1

gunicorn-23.0.0

huey-2.6.0

iniconfig-2.3.0

invoke-2.2.1

ml_dtypes-0.5.4

mlflow-3.9.0

mlflow-skinny-3.9.0

mlflow-tracing-3.9.0

multidict-6.7.1

onnx-1.20.1

onnxruntime-1.24.1

opentelemetry-api-1.39.1

opentelemetry-proto-1.39.1

opentelemetry-sdk-1.39.1

opentelemetry-semantic-conventions-0.60b1

orderly-set-5.5.0

paramiko-4.0.0

pluggy-1.6.0

propcache-0.4.1

pyasn1_modules-0.4.2

pytest-9.0.2

python-dotenv-1.2.1

python-rapidjson-1.23

sagemaker-mlflow-0.2.0

sagemaker-mlops-1.4.1

sagemaker-schema-inference-artifacts-0.0.5

sagemaker-serve-1.4.1

sagemaker-train-1.4.1

skops-0.13.0

smmap-5.0.2

sqlparse-0.5.5

tritonclient-2.65.0

yarl-1.22.0

zope.event-6.1

zope.interface-8.2

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.6	1.6.8

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300063.0b1323-1	1.300064.0b1337-1
awscli	1.44.25	1.44.40
babel	2.17.0	2.18.0
boto3	1.42.35	1.42.50
botocore	1.42.35	1.42.50
cpp-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
cpp-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
cryptography	46.0.3	46.0.5
debugpy	1.8.19	1.8.20
devscripts	2.23.7	2.23.7ubuntu0.1
docker-buildx-plugin	0.30.1-1~ubuntu.24.04~noble	0.31.1-1~ubuntu.24.04~noble
docker-ce-cli	29.2.0-1~ubuntu.24.04~noble	29.2.1-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.2.0-1~ubuntu.24.04~noble	29.2.1-1~ubuntu.24.04~noble
fastapi	0.128.0	0.129.0
filelock	3.20.3	3.24.2
fsspec	2026.1.0	2026.2.0

Package Name	Previous Version	New Version
g++-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
g++-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-13-base	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gcc-14-base	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
gfortran-13	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gfortran-13-aarch64-linux-gnu	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
gir1.2-glib-2.0	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
inetutils-telnet	2.5-3ubuntu4	2.5-3ubuntu4.1
initramfs-tools-bin	0.142ubuntu25.5	0.142ubuntu25.8
initramfs-tools-core	0.142ubuntu25.5	0.142ubuntu25.8
inspectorssmplugin	1.0.434	1.0.441
ipython	9.9.0	9.10.0
jupyterlab	4.5.3	4.5.4
libasan8	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1

Package Name	Previous Version	New Version
libatomic1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libc-bin	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc-dev-bin	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc-devtools	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc6	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libc6-dev	2.39-0ubuntu8.6	2.39-0ubuntu8.7
libcc1-0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libdrm-common	2.4.122-1~ubuntu0.24.04.2	2.4.125-1ubuntu0.1~24.04.1
libdrm2	2.4.122-1~ubuntu0.24.04.2	2.4.125-1ubuntu0.1~24.04.1
libexpat1	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libexpat1-dev	2.6.1-2ubuntu0.3	2.6.1-2ubuntu0.4
libfwupd2	1.9.31-0ubuntu1~24.04.1	1.9.33-0ubuntu1~24.04.1ubuntu1
libgcc-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libgcc-s1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgfortran-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1

Package Name	Previous Version	New Version
libgfortran5	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libgirepository-2.0-0	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-0t64	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-bin	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-data	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-dev	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libglib2.0-dev-bin	2.80.0-6ubuntu3.7	2.80.0-6ubuntu3.8
libgnutls30t64	3.8.3-1.1ubuntu3.4	3.8.3-1.1ubuntu3.5
libgomp1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libhwasan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libitm1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libldap-common	2.6.7+dfsg-1~exp1ubuntu8.2	2.6.10+dfsg-0ubuntu0.24.04.1
libldap2	2.6.7+dfsg-1~exp1ubuntu8.2	2.6.10+dfsg-0ubuntu0.24.04.1
liblsan0	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libmysqlclient21	8.0.44-0ubuntu0.24.04.2	8.0.45-0ubuntu0.24.04.1

Package Name	Previous Version	New Version
libnuma1	2.0.18-1build1	2.0.18-1ubuntu0.24.04.1
libpng-dev	1.6.43-5ubuntu0.3	1.6.43-5ubuntu0.5
libpng-tools	1.6.43-5ubuntu0.3	1.6.43-5ubuntu0.5
libpng16-16t64	1.6.43-5ubuntu0.3	1.6.43-5ubuntu0.5
libpython3.12-dev	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libpython3.12-minimal	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libpython3.12-stdlib	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libpython3.12t64	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
libssl-dev	3.0.13-0ubuntu3.6	3.0.13-0ubuntu3.7
libssl3t64	3.0.13-0ubuntu3.6	3.0.13-0ubuntu3.7
libstdc++-13-dev	13.3.0-6ubuntu2~24.04	13.3.0-6ubuntu2~24.04.1
libstdc++6	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libtsan2	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
libubsan1	14.2.0-4ubuntu2~24.04	14.2.0-4ubuntu2~24.04.1
linux-libc-dev	6.8.0-90.91	6.8.0-100.100
linux-tools-common	6.8.0-90.91	6.8.0-100.100
locales	2.39-0ubuntu8.6	2.39-0ubuntu8.7

Package Name	Previous Version	New Version
lustre-client-modules-6.14.0-1018-aws	2.15.6-1fsx25	2.15.6-1fsx26
lustre-client-utils	2.15.6-1fsx25	2.15.6-1fsx26
marshmallow	4.2.1	4.2.2
motd-news-config	13ubuntu10.3	13ubuntu10.4
narwhals	2.15.0	2.16.0
nbconvert	7.16.6	7.17.0
packaging	24.2	25.0
pandas	3.0.0	2.3.3
parso	0.8.5	0.8.6
pillow	12.1.0	12.1.1
pip	25.3	26.0.1
platformdirs	4.4.0	4.9.2
protobuf	6.31.1	6.33.5
psutil	7.2.1	7.2.2
pyarrow	23.0.0	22.0.0
python-apt-common	2.7.7ubuntu5.1	2.7.7ubuntu5.2
python3-apt	2.7.7ubuntu5.1	2.7.7ubuntu5.2
python3-distupgrade	24.04.27	24.04.28
python3.12-dev	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
python3.12-minimal	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11

Package Name	Previous Version	New Version
python3.12-venv	3.12.3-1ubuntu0.10	3.12.3-1ubuntu0.11
rich	14.3.1	13.9.4
sagemaker	2.256.1	3.4.1
sagemaker-core	1.0.74	2.4.1
setuptools	80.10.2	81.0.0
starlette	0.50.0	0.52.1
telnet	2.5-3ubuntu4	2.5-3ubuntu4.1
tenacity	9.1.2	9.1.4
tqdm	4.67.1	4.67.3
typer	0.21.1	0.24.0
ubuntu-release-upgrader-core	24.04.27	24.04.28
uvicorn	0.40.0	0.41.0
wcwidth	0.4.0	0.6.0

Removed Packages

Package Name
google-pasta
multiprocess
pathos
pox

Package Name
ppft

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
docker-compose-plugin	5.0.1-1~ubuntu.24.04~noble	5.0.2-1~ubuntu.24.04~noble
gir1.2-glib-2.0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0

Package Name	Previous Version	New Version
libgirepository-2.0-0	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-0t64	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-data	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libglib2.0-dev-bin	2.80.0-6ubuntu3.6	2.80.0-6ubuntu3.7
libxml2	2.9.14+dfsg-1.3ubuntu3.6	2.9.14+dfsg-1.3ubuntu3.7
more-itertools	10.3.0	10.8.0
nvidia-imex	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
packaging	24.2	25.0
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
python3-pyasn1	0.4.8-4	0.4.8-4ubuntu0.1
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0

Package Name	Previous Version	New Version
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9

nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1

Package Name	Previous Version	New Version
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
kpartx	0.9.4-5ubuntu8	0.9.4-5ubuntu8.1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
platformdirs	4.5.1	4.2.2
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64

kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
awscli	1.44.15	1.44.20
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
docker-ce-cli	29.1.4-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.4-1~ubuntu.24.04~noble	29.1.5-1~ubuntu.24.04~noble
inspectorssmplugin	1.0.432	1.0.434
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
klibc-utils	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libheif-plugin-aomdec	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif-plugin-aomenc	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif-plugin-libde265	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libheif1	1.17.6-1ubuntu4.1	1.17.6-1ubuntu4.2
libklibc	2.0.13-4ubuntu0.1	2.0.13-4ubuntu0.2
libpng-dev	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3

Package Name	Previous Version	New Version
libpng-tools	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpng16-16t64	1.6.43-5ubuntu0.1	1.6.43-5ubuntu0.3
libpython3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12-stdlib	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libpython3.12t64	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
libtasn1-6	4.19.0-3ubuntu0.24.04.1	4.19.0-3ubuntu0.24.04.2
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
python3-urllib3	2.0.7-1ubuntu0.3	2.0.7-1ubuntu0.6
python3.12-dev	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-minimal	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
python3.12-venv	3.12.3-1ubuntu0.9	3.12.3-1ubuntu0.10
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
snapd	2.72+ubuntu24.04	2.73+ubuntu24.04
tomlkit	0.13.3	0.14.0

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.7	1.44.10
boto3	1.42.17	1.42.20
botocore	1.42.17	1.42.20
docker-compose-plugin	5.0.0-1~ubuntu.24.04~noble	5.0.1-1~ubuntu.24.04~noble
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430	1.0.431
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
psutil	7.2.0	7.2.1

Package Name	Previous Version	New Version
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1018-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.9
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.4	1.44.7
boto3	1.42.14	1.42.17
botocore	1.42.14	1.42.17
fastapi	0.125.0	0.127.1
libxnvctrl0	590.44.01-0ubuntu1	590.48.01-0ubuntu1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0

Package Name	Previous Version	New Version
nbclient	0.10.3	0.10.4
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
typer	0.20.1	0.21.0
typing_extensions	4.15.0	4.12.2
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1017-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
awscli	1.43.5	1.43.10
beautifulsoup4	4.14.2	4.14.3
binutils-aarch64-linux-gnu	2.42-4ubuntu2.6	2.42-4ubuntu2.7

Package Name	Previous Version	New Version
binutils-common	2.42-4ubuntu2.6	2.42-4ubuntu2.7
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.1-1~ubuntu.24.04~noble	29.1.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	29.1.1-1~ubuntu.24.04~noble	29.1.2-1~ubuntu.24.04~noble
docker-compose-plugin	2.40.3-1~ubuntu.24.04~noble	5.0.0-1~ubuntu.24.04~noble
fastapi	0.122.0	0.123.10
fsspec	2025.10.0	2025.12.0
gdrcopy	2.5-1	2.5.1
gdrcopy-tests	2.5-1	2.5.1
gdrdrv-dkms	2.5-1	2.5.1
gir1.2-glib-2.0	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
ipython	9.7.0	9.8.0
libbinutils	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libctf-nobfd0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libctf0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libgdrapi	2.5-1	2.5.1

Package Name	Previous Version	New Version
libgirepository-2.0-0	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-0t64	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-bin	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-data	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-dev	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libglib2.0-dev-bin	2.80.0-6ubuntu3.4	2.80.0-6ubuntu3.5
libgprofng0	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libmysqlclient21	8.0.44-0ubuntu0.24.04.1	8.0.44-0ubuntu0.24.04.2
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
libsframe1	2.42-4ubuntu2.6	2.42-4ubuntu2.7
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-imex	580.95.05-1	580.105.08-1
platformdirs	4.5.0	4.5.1
rpds-py	0.29.0	0.30.0

Package Name	Previous Version	New Version
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
typing_extensions	4.12.2	4.15.0
urllib3	2.5.0	2.6.0

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
linux-aws-6.14-headers-6.14.0-1015
linux-aws-6.14-tools-6.14.0-1015
linux-headers-6.14.0-1015-aws
linux-image-6.14.0-1015-aws
linux-modules-6.14.0-1015-aws

Package Name
linux-tools-6.14.0-1015-aws
multidict
propcache
wrapt
yarl

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251114

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Ubuntu 24.04.3 LTS
compute_architecture	aarch64
kernel_version	6.14.0-1016-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5
nvidia_container_toolkit_version	1.18.0
ofi_nccl_version	1.16.3

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
annotated-doc	0.0.3	0.0.4
awscli	1.42.69	1.42.74
boto3	1.40.69	1.40.74
botocore	1.40.69	1.40.74
certifi	2025.10.5	2025.11.12
containerd.io	1.7.29-1~ubuntu.24.04~noble	2.1.5-1~ubuntu.24.04~noble

Package Name	Previous Version	New Version
docker-buildx-plugin	0.29.1-1~ubuntu.24.04~noble	0.30.0-1~ubuntu.24.04~noble
docker-ce-cli	28.5.2-1~ubuntu.24.04~noble	29.0.1-1~ubuntu.24.04~noble
docker-ce-rootless-extras	28.5.2-1~ubuntu.24.04~noble	29.0.1-1~ubuntu.24.04~noble
fastapi	0.121.0	0.121.2
inspectorssmplugin	1.0.411	1.0.412
libpython3-dev	3.12.3-0ubuntu2	3.12.3-0ubuntu2.1
libpython3-stdlib	3.12.3-0ubuntu2	3.12.3-0ubuntu2.1
narwhals	2.10.2	2.11.0
prettytable	3.16.0	3.17.0
pydantic	2.12.4	2.9.2
pydantic_core	2.41.5	2.23.4
python3	3.12.3-0ubuntu2	3.12.3-0ubuntu2.1
python3-dev	3.12.3-0ubuntu2	3.12.3-0ubuntu2.1
python3-minimal	3.12.3-0ubuntu2	3.12.3-0ubuntu2.1
python3-venv	3.12.3-0ubuntu2	3.12.3-0ubuntu2.1
safety-schemas	0.0.16	0.0.14
sagemaker-core	1.0.64	1.0.66
tblib	3.2.1	3.2.2

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
lustre-client-modules-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.8
gdr_copy	2.5
supported_ec2_instances	G5g
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.9
ssm_agent_version	3.3.2299.0
kernel_version	6.14.0-1016-aws

Package Name	Version
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Ubuntu 24.04.3 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

ImageIO-2.37.2
annotated-doc-0.0.3
linux-aws-6.14-headers-6.14.0-1015-6.14.0-1015.15~24.04.1
linux-aws-6.14-headers-6.14.0-1016-6.14.0-1016.16~24.04.1
linux-aws-6.14-tools-6.14.0-1015-6.14.0-1015.15~24.04.1
linux-aws-6.14-tools-6.14.0-1016-6.14.0-1016.16~24.04.1

linux-headers-6.14.0-1015-aws-6.14.0-1015.15~24.04.1
linux-headers-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-image-6.14.0-1015-aws-6.14.0-1015.15~24.04.1
linux-image-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-modules-6.14.0-1015-aws-6.14.0-1015.15~24.04.1
linux-modules-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
linux-tools-6.14.0-1015-aws-6.14.0-1015.15~24.04.1
linux-tools-6.14.0-1016-aws-6.14.0-1016.16~24.04.1
lustre-client-modules-6.14.0-1016-aws-2.15.6-1fsx22

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300059.0b1207-1	1.300061.0b1289-1
arrow	1.3.0	1.4.0
attrs	25.3.0	25.4.0
awscli	1.42.45	1.42.69
bind9-dnsutils	9.18.39-0ubuntu0.24.04.1	9.18.39-0ubuntu0.24.04.2
bind9-host	9.18.39-0ubuntu0.24.04.1	9.18.39-0ubuntu0.24.04.2
bind9-libs	9.18.39-0ubuntu0.24.04.1	9.18.39-0ubuntu0.24.04.2

Package Name	Previous Version	New Version
binutils-aarch64-linux-gnu	2.42-4ubuntu2.5	2.42-4ubuntu2.6
binutils-common	2.42-4ubuntu2.5	2.42-4ubuntu2.6
bleach	6.2.0	6.3.0
bokeh	3.8.0	3.8.1
boto3	1.40.45	1.40.69
botocore	1.40.45	1.40.69
certifi	2025.8.3	2025.10.5
charset-normalizer	3.4.3	3.4.4
cloudpickle	3.1.1	3.1.2
containerd.io	1.7.28-0~ubuntu.24.04~noble	1.7.29-1~ubuntu.24.04~noble
cryptography	46.0.2	46.0.3
distro-info-data	0.60ubuntu0.3	0.60ubuntu0.5
dkms	3.2.1-1ubuntu2	3.2.2-1ubuntu1
docker-ce-cli	28.5.0-1~ubuntu.24.04~noble	28.5.2-1~ubuntu.24.04~noble
docker-ce-rootless-extras	28.5.0-1~ubuntu.24.04~noble	28.5.2-1~ubuntu.24.04~noble
docker-compose-plugin	2.39.4-0~ubuntu.24.04~noble	2.40.3-1~ubuntu.24.04~noble
efa	2.17.2-1.amzn1	2.17.3-1.amzn1

Package Name	Previous Version	New Version
fastapi	0.118.0	0.121.0
filelock	3.19.1	3.20.0
fsspec	2025.9.0	2025.10.0
graphql-core	3.2.6	3.2.7
gymnasium	1.2.1	1.2.2
idna	3.10	3.11
inspectorssmplugin	1.0.399	1.0.411
ipython	9.6.0	9.7.0
ipywidgets	8.1.7	8.1.8
java-11-amazon-corretto-jdk	11.0.28.6-1	11.0.29.7-1
jupyter_core	5.8.1	5.9.1
jupyterlab	4.4.9	4.4.10
jupyterlab_server	2.27.3	2.28.0
jupyterlab_widgets	3.0.15	3.0.16
lark	1.3.0	1.3.1
libbinutils	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libctf-nobfd0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libctf0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libgprofng0	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libnccl-ofi	1.16.2-1	1.16.3-1

Package Name	Previous Version	New Version
libnss-systemd	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libnvidia-container-tools	1.17.8-1	1.18.0-1
libnvidia-container1	1.17.8-1	1.18.0-1
libpam-systemd	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libsframe1	2.42-4ubuntu2.5	2.42-4ubuntu2.6
libssh-4	0.10.6-2ubuntu0.1	0.10.6-2ubuntu0.2
libsystemd-shared	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libsystemd0	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libudev-dev	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libudev1	255.4-1ubuntu8.10	255.4-1ubuntu8.11
libxml2	2.9.14+dfsg-1.3ubuntu3.5	2.9.14+dfsg-1.3ubuntu3.6
libxnvctrl0	580.95.05-0ubuntu1	580.105.08-0ubuntu1
lintian	2.117.0ubuntu1.3	2.117.0ubuntu1.4
linux-aws	6.14.0-1014.14~24.04.1	6.14.0-1016.16~24.04.1
linux-headers-aws	6.14.0-1014.14~24.04.1	6.14.0-1016.16~24.04.1
linux-image-aws	6.14.0-1014.14~24.04.1	6.14.0-1016.16~24.04.1
linux-libc-dev	6.8.0-85.85	6.8.0-87.88

Package Name	Previous Version	New Version
linux-tools-common	6.8.0-85.85	6.8.0-87.88
lustre-client-modules-aws	6.14.0-1014.14~24.04.1	6.14.0-1016.16~24.04.1
marshmallow	4.0.1	4.1.0
matplotlib	3.10.6	3.10.7
matplotlib-inline	0.1.7	0.2.1
narwhals	2.6.0	2.10.2
nvidia-container-toolkit-base	1.17.8-1	1.18.0-1
pillow	11.3.0	12.0.0
pip	25.2	25.3
psutil	7.1.0	7.1.3
pyarrow	21.0.0	22.0.0
pydantic	2.11.9	2.12.4
pydantic_core	2.33.2	2.41.5
python-json-logger	3.3.0	4.0.0
referencing	0.36.2	0.37.0
regex	2025.9.18	2025.11.3
rich	14.1.0	14.2.0
rpds-py	0.27.1	0.28.0
ruamel.yaml	0.18.15	0.18.16

Package Name	Previous Version	New Version
sagemaker	2.252.0	2.254.1
sagemaker-core	1.0.59	1.0.64
schema	0.7.7	0.7.8
scipy	1.16.2	1.16.3
shap	0.48.0	0.49.1
snapd	2.68.5+ubuntu24.04.1	2.71+ubuntu24.04
sosreport	4.8.2-0ubuntu0~24.04.2	4.9.2-0ubuntu0~24.04.1
starlette	0.48.0	0.49.3
systemd-dev	255.4-1ubuntu8.10	255.4-1ubuntu8.11
systemd-hwe-hwdb	255.1.5	255.1.6
systemd-resolved	255.4-1ubuntu8.10	255.4-1ubuntu8.11
systemd-sysv	255.4-1ubuntu8.10	255.4-1ubuntu8.11
tblib	3.1.0	3.2.1
tcpdump	4.99.4-3ubuntu4	4.99.4-3ubuntu4.24.04.1
termcolor	3.1.0	3.2.0
typer	0.19.2	0.20.0
udev	255.4-1ubuntu8.10	255.4-1ubuntu8.11
uvicorn	0.37.0	0.38.0
webcolors	24.11.1	25.10.0

Package Name	Previous Version	New Version
websocket-client	1.8.0	1.9.0
widgetsnbextension	4.0.14	4.0.15
xyzservices	2025.4.0	2025.10.0

Removed Packages

Package Name
imageio
linux-aws-6.14-headers-6.14.0-1014
linux-aws-6.14-tools-6.14.0-1014
linux-headers-6.14.0-1014-aws
linux-image-6.14.0-1014-aws
linux-modules-6.14.0-1014-aws
linux-tools-6.14.0-1014-aws
lustre-client-modules-6.14.0-1014-aws
types-python-dateutil

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20251003

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.8
gdr_copy	2.5
supported_ec2_instances	G5g
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.9
ssm_agent_version	3.3.2299.0
kernel_version	6.14.0-1014-aws
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.2
operating_system	Ubuntu 24.04.3 LTS
default_cuda	/usr/local/cuda-12.9/
compute_architecture	aarch64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
libkeyutils-dev-1.6.3-3build1
libmysqlclient21-8.0.43-0ubuntu0.24.04.2
libnetsnmptrapd40t64-5.9.4+dfsg-1.1ubuntu3.1
libpci-dev-3.10.0-2build1
libsensors-dev-3.6.0-9build1
libsnmp-base-5.9.4+dfsg-1.1ubuntu3.1
libsnmp-dev-5.9.4+dfsg-1.1ubuntu3.1
libsnmp-perl-5.9.4+dfsg-1.1ubuntu3.1
libsnmp40t64-5.9.4+dfsg-1.1ubuntu3.1
libudev-dev-255.4-1ubuntu8.10
libwrap0-dev-7.6.q-33
linux-aws-6.14-headers-6.14.0-1014-6.14.0-1014.14~24.04.1
linux-aws-6.14-tools-6.14.0-1014-6.14.0-1014.14~24.04.1
linux-headers-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
linux-image-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
linux-modules-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
linux-tools-6.14.0-1014-aws-6.14.0-1014.14~24.04.1
lustre-client-modules-6.14.0-1014-aws-2.15.6-1fsx22
```

lustre-client-modules-aws-6.14.0-1014.14~24.04.1
lustre-client-utils-2.15.6-1fsx22
mysql-common-1.1.0build1
nvidia-imex-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
awscli	1.42.40	1.42.45
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.40	1.40.45
botocore	1.40.40	1.40.45
cloud-init	25.1.4-0ubuntu0~24.04.1	25.2-0ubuntu1~24.04.1
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.24.04~noble	0.29.1-1~ubuntu.24.04~noble
docker-ce-cli	28.4.0-1~ubuntu.24.04~noble	28.5.0-1~ubuntu.24.04~noble
docker-ce-rootless-extras	28.4.0-1~ubuntu.24.04~noble	28.5.0-1~ubuntu.24.04~noble
fastapi	0.117.1	0.118.0

Package Name	Previous Version	New Version
fonttools	4.60.0	4.60.1
inspectorssmplugin	1.0.398	1.0.399
ipython	9.5.0	9.6.0
libssl-dev	3.0.13-0ubuntu3.5	3.0.13-0ubuntu3.6
libssl3t64	3.0.13-0ubuntu3.5	3.0.13-0ubuntu3.6
libtiff6	4.5.1+git230720-4ubuntu2.3	4.5.1+git230720-4ubuntu2.4
libxnvctrl0	580.82.07-0ubuntu1	580.95.05-0ubuntu1
linux-aws	6.14.0-1013.13~24.04.1	6.14.0-1014.14~24.04.1
linux-headers-aws	6.14.0-1013.13~24.04.1	6.14.0-1014.14~24.04.1
linux-image-aws	6.14.0-1013.13~24.04.1	6.14.0-1014.14~24.04.1
linux-libc-dev	6.8.0-84.84	6.8.0-85.85
linux-tools-common	6.8.0-84.84	6.8.0-85.85
llvmlite	0.45.0	0.45.1
narwhals	2.5.0	2.6.0
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1
open-vm-tools	12.5.0-1~ubuntu0.24.04.1	12.5.0-1~ubuntu0.24.04.2

Package Name	Previous Version	New Version
pandas	2.3.2	2.3.3
sagemaker	2.251.1	2.252.0
typing-inspection	0.4.1	0.4.2
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1013
linux-aws-6.14-tools-6.14.0-1013
linux-headers-6.14.0-1013-aws
linux-image-6.14.0-1013-aws
linux-modules-6.14.0-1013-aws
linux-tools-6.14.0-1013-aws
nvidia-imex-570

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 24.04) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g
operating_system	Ubuntu 24.04.3 LTS

Package Name	Version
compute_architecture	aarch64
kernel_version	6.14.0-1013-aws
framework_version	2.8
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.9/
nvidia_cuda_stack	/usr/local/cuda-12.9
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.14-headers-6.14.0-1013-6.14.0-1013.13~24.04.1
linux-aws-6.14-tools-6.14.0-1013-6.14.0-1013.13~24.04.1
linux-headers-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-image-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-modules-6.14.0-1013-aws-6.14.0-1013.13~24.04.1
linux-tools-6.14.0-1013-aws-6.14.0-1013.13~24.04.1

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
awscli	1.42.35	1.42.40
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
containerd.io	1.7.27-1	1.7.28-0~ubuntu.24.04~noble
dpkg-dev	1.22.6ubuntu6.2	1.22.6ubuntu6.5
fastapi	0.116.2	0.117.1
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396	1.0.398
jupyterlab	4.4.7	4.4.9

Package Name	Previous Version	New Version
lark	1.2.2	1.3.0
libc-bin	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc-dev-bin	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc-devtools	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc6	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libc6-dev	2.39-0ubuntu8.5	2.39-0ubuntu8.6
libdpkg-perl	1.22.6ubuntu6.2	1.22.6ubuntu6.5
libpam-modules	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
libpam-modules-bin	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
libpam-runtime	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
libpam0g	1.5.3-5ubuntu5.4	1.5.3-5ubuntu5.5
linux-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-headers-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-image-aws	6.14.0-1012.12~24.04.1	6.14.0-1013.13~24.04.1
linux-libc-dev	6.8.0-83.83	6.8.0-84.84
linux-tools-common	6.8.0-83.83	6.8.0-84.84
locales	2.39-0ubuntu8.5	2.39-0ubuntu8.6
open-vm-tools	12.4.5-1~ubuntu0.24.04.2	12.5.0-1~ubuntu0.24.04.1

Package Name	Previous Version	New Version
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
python3-pip	24.0+dfsg-1ubuntu1.2	24.0+dfsg-1ubuntu1.3
python3-pip-whl	24.0+dfsg-1ubuntu1.2	24.0+dfsg-1ubuntu1.3
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.18.0	0.19.2
typing_extensions	4.15.0	4.12.2
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14
zipp	3.19.2	3.23.0

Removed Packages

Package Name
linux-aws-6.14-headers-6.14.0-1012
linux-aws-6.14-tools-6.14.0-1012
linux-headers-6.14.0-1012-aws
linux-image-6.14.0-1012-aws
linux-modules-6.14.0-1012-aws

Package Name
linux-tools-6.14.0-1012-aws

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-05-22

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 22.04) 20250521

Added

- Initial release of Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.8 (Ubuntu 22.04) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate) complimented with NVIDIA Driver R570, CUDA=12.8, cuDNN=9.10, and PyTorch NCCL=2.26.2

AWS Deep Learning ARM64 AMI GPU PyTorch 2.7 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.7-amazon-linux-2023/latest/ami-id
 && \
       aws ssm get-parameter --region us-east-1 \
       --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
       --query "Parameter.Value" \
       --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon
 Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260320
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260306
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260220
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260122
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260121
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260116
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260106
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251205
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251114
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251107
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251003

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20250926

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64
kernel_version	6.12.73-95.123.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
boto3	1.42.68	1.42.73
botocore	1.42.68	1.42.73
charset-normalizer	3.4.5	3.4.6
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
inspectorssmplugin	1.0.443-1	1.0.456-1
nvidia-ml-py	13.590.48	13.595.45
onnxruntime	1.24.3	1.24.4
pyasn1	0.6.2	0.6.3
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0

Package Name	Previous Version	New Version
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
uvicorn	0.41.0	0.42.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260302
compute_architecture	aarch64
kernel_version	6.12.73-95.123.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
ebs_volume_type	gp3

ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.73-95.123-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-linux-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
boto3	1.42.54	1.42.62
botocore	1.42.54	1.42.62
cachetools	7.0.1	7.0.3
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5

Package Name	Previous Version	New Version
container-selinux	2.242.0-1.amzn2023	2.245.0-1.amzn2023
databricks-sdk	0.91.0	0.96.0
dnf-plugin-support-info	1.10-1.amzn2023	1.11-1.amzn2023
ec2-hibinit-agent	1.0.10-1.amzn2023	1.0.10-2.amzn2023
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
geventhttpclient	2.3.7	2.3.9
graphql-core	3.2.7	3.2.8
inspectorssmplugin	1.0.441-1	1.0.443-1
ipython	9.10.0	9.11.0
jupyterlab	4.5.4	4.5.5
jxl-pixbuf-loader	0.10.3-54.amzn2023	0.10.3-55.amzn2023
kernel-livepatch-repo-s3	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
kernel6.12	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-devel	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-headers	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-libbpf	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023

Package Name	Previous Version	New Version
kernel6.12-modules-extra	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-modules-extra-common	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
kernel6.12-tools	6.12.68-92.122.amzn2023	6.12.73-95.123.amzn2023
libjxl	0.10.3-54.amzn2023	0.10.3-55.amzn2023
libpng	1.6.37-10.amzn2023.0.10	1.6.37-10.amzn2023.0.11
libsoup3	3.6.5-55.amzn2023	3.6.5-56.amzn2023
libssh	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-config	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libssh-devel	0.10.6-1.amzn2023.0.3	0.10.6-1.amzn2023.0.4
libxml2	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
libxml2-devel	2.10.4-1.amzn2023.0.17	2.10.4-1.amzn2023.0.18
lustre-client	2.15.6-25.amzn2023	2.15.6-27.amzn2023
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1

Package Name	Previous Version	New Version
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
platformdirs	4.9.2	4.9.4
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
scipy	1.17.0	1.17.1
selinux-policy	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1

Package Name	Previous Version	New Version
selinux-policy-targeted	38.1.65-1.amzn2023.0.1	38.1.73-1.amzn2023.0.1
system-release	2023.10.20260216-0.amzn2023	2023.10.20260302-0.amzn2023
systemtap	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-client	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-runtime	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-devel	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
systemtap-sdt-dtrace	5.2-1.amzn2023.0.5	5.4-1.amzn2023.0.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
typer	0.24.0	0.24.1
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-6.12.68-92.122

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260216
compute_architecture	aarch64
kernel_version	6.12.68-92.122.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3598.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.68-92.122-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
alsa-lib	1.2.7.2-1.amzn2023.0.2	1.2.7.2-1.amzn2023.0.3
amazon-cloudwatch-agent	1.300062.1-1.amzn2023	1.300064.1-1.amzn2023
amazon-linux-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
amazon-ssm-agent	3.3.3572.0-1.amzn2023	3.3.3598.0-1.amzn2023
async-lru	2.1.0	2.2.0
boto3	1.42.49	1.42.54
botocore	1.42.49	1.42.54
cachetools	6.2.6	7.0.1
containerd	2.1.5-1.amzn2023.0.5	2.2.1-1.amzn2023.0.1
coreutils	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5
coreutils-common	8.32-30.amzn2023.0.4	8.32-30.amzn2023.0.5

Package Name	Previous Version	New Version
curl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
databricks-sdk	0.88.0	0.91.0
docker	25.0.14-1.amzn2023.0.1	25.0.14-1.amzn2023.0.2
expat	2.6.3-1.amzn2023.0.3	2.6.3-1.amzn2023.0.4
filelock	3.21.2	3.24.3
gnupg2	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
gnupg2-smime	2.3.7-1.amzn2023.0.6	2.3.7-1.amzn2023.0.7
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
kernel-livepatch-repo-s3	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023
kernel6.12	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-devel	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-headers	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-libbpf	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-modules-extra	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023

Package Name	Previous Version	New Version
kernel6.12-modules-extra-common	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
kernel6.12-tools	6.12.66-88.122.amzn2023	6.12.68-92.122.amzn2023
libcurl-devel	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libcurl-minimal	8.15.0-4.amzn2023.0.1	8.17.0-1.amzn2023.0.1
libpng	1.6.37-10.amzn2023.0.9	1.6.37-10.amzn2023.0.10
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
numba	0.63.1	0.64.0
onnxruntime	1.24.1	1.24.2
openssh	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-clients	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssh-server	8.7p1-8.amzn2023.0.15	8.7p1-8.amzn2023.0.16
openssl	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-devel	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5

Package Name	Previous Version	New Version
openssl-fips-provider-latest	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
openssl-libs	3.2.2-1.amzn2023.0.4	3.2.2-1.amzn2023.0.5
packaging	25.0	26.0
protobuf	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-compiler	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
protobuf-devel	3.19.6-1.amzn2023.0.1	3.19.6-1.amzn2023.0.3
publicsuffix-list	20240212-61.amzn2023	20260116-1.amzn2023.0.1
publicsuffix-list-dafsa	20240212-61.amzn2023	20260116-1.amzn2023.0.1
pyarrow	22.0.0	23.0.1
pybind11	3.0.1	3.0.2
python3-awscrt	0.29.1-1.amzn2023.0.1	0.31.1-1.amzn2023.0.1
regex	2026.1.15	2026.2.19
runc	1.3.4-1.amzn2023.0.1	1.3.4-1.amzn2023.0.2
rust-toolset-srpm-macros	1.92.0-1.amzn2023.0.1	1.93.0-1.amzn2023.0.1
system-release	2023.10.20260202-0.amzn2023	2023.10.20260216-0.amzn2023

Package Name	Previous Version	New Version
typer	0.23.1	0.24.0
uvicorn	0.40.0	0.41.0
zlib	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6
zlib-devel	1.2.11-33.amzn2023.0.5	1.2.11-33.amzn2023.0.6

Removed Packages

Package Name
kernel-livepatch-6.12.66-88.122

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8

gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0

Package Name	Previous Version	New Version
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
more-itertools	10.3.0	10.8.0
nvidia-imex	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.5.1
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections

Package Name
typeguard

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
inspectorssmplugin	1.0.432-1	1.0.434-1
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0

Package Name	Previous Version	New Version
tomlkit	0.13.3	0.14.0
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20260106

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3

ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.17	1.42.22
botocore	1.42.17	1.42.22
certifi	2025.11.12	2026.1.4
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430-1	1.0.432-1
ipython	9.8.0	9.9.0
json5	0.12.1	0.13.0

Package Name	Previous Version	New Version
marshmallow	4.1.2	4.2.0
pillow	12.0.0	12.1.0
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08

nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.14	1.42.17
botocore	1.42.14	1.42.17
fastapi	0.125.0	0.127.1
marshmallow	4.1.1	4.1.2

Package Name	Previous Version	New Version
mistune	3.1.4	3.2.0
nbclient	0.10.3	0.10.4
platformdirs	4.2.2	4.5.1
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
typer	0.20.1	0.21.0
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/

nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
anyio	4.11.0	4.12.0
beautifulsoup4	4.14.2	4.14.3
boto3	1.41.5	1.42.4

Package Name	Previous Version	New Version
botocore	1.41.5	1.42.4
fastapi	0.122.0	0.123.10
fsspec	2025.10.0	2025.12.0
gdrcopy	2.5-1	2.5.1-1
gdrcopy-devel	2.5-1	2.5.1-1
gdrcopy-kmod	2.5-1dkms	2.5.1-1dkms
ipython	9.7.0	9.8.0
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit	1.18.0-1	1.18.1-1
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-imex	580.95.05-1	580.105.08-1
platformdirs	4.5.0	4.5.1
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0

Package Name	Previous Version	New Version
sagemaker-core	1.0.69	1.0.71
urllib3	2.5.0	2.6.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
multidict
propcache
sniffio
wrapt
yarl

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251114

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.9.20251110
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.18.0
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.55-74.119-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300059.1-1.amzn2023	1.300060.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
annotated-doc	0.0.3	0.0.4
boto3	1.40.69	1.40.74
botocore	1.40.69	1.40.74
certifi	2025.10.5	2025.11.12
containerd	2.1.4-1.amzn2023.0.1	2.1.4-1.amzn2023.0.2
dkms	3.2.1-182.amzn2023	3.3.0-183.amzn2023
dnf-plugin-support-info	1.8-1.amzn2023	1.9-1.amzn2023
docker	25.0.13-1.amzn2023.0.1	25.0.13-1.amzn2023.0.2
dwz	0.14-6.amzn2023.0.2	0.16-2.amzn2023.0.1
fastapi	0.121.0	0.121.2
inspectorssmplugin	1.0.411-1	1.0.412-1

Package Name	Previous Version	New Version
kernel-livepatch-repo-s3	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
kernel6.12	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-devel	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-headers	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-libbpf	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-modules-extra	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-modules-extra-common	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-tools	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
libcap	2.73-1.amzn2023.0.3	2.73-1.amzn2023.0.4
libssh	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-config	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-devel	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
lustre-client	2.15.6-21.amzn2023	2.15.6-23.amzn2023
lz4-libs	1.9.4-1.amzn2023.0.2	1.9.4-1.amzn2023.0.3

Package Name	Previous Version	New Version
narwhals	2.10.2	2.11.0
pam	1.5.1-8.amzn2023.0.6	1.5.1-8.amzn2023.0.7
platformdirs	4.2.2	4.5.0
prettytable	3.16.0	3.17.0
pydantic	2.12.4	2.9.2
pydantic_core	2.41.5	2.23.4
python3	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-libs	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
runc	1.3.2-2.amzn2023.0.1	1.3.3-2.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
sagemaker-core	1.0.64	1.0.66
system-release	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
tblib	3.2.1	3.2.2

Removed Packages

Package Name
kernel-livepatch-6.12.53-69.119

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.7
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.3050.0
kernel_version	6.12.53-69.119.amzn2023.aarch64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251105
default_cuda	/usr/local/cuda-12.8/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ImageIO-2.37.2
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
bind-libs	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-license	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-utils	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bokeh	3.8.0	3.8.1
boto3	1.40.65	1.40.69
botocore	1.40.65	1.40.69
gymnasium	1.2.1	1.2.2

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.405-1	1.0.411-1
ipython	9.6.0	9.7.0
kernel-livepatch-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
narwhals	2.10.1	2.10.2
pydantic	2.12.3	2.12.4
pydantic_core	2.41.4	2.41.5
sagemaker-core	1.0.62	1.0.64
system-release	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
imageio

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20251003

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.7
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.3050.0
kernel_version	6.12.46-66.121.amzn2023.aarch64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.2
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.8/
compute_architecture	aarch64

Package Changes from Previous Release

Note

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our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-6.12.46-66.121-1.0-0.amzn2023
nvidia-imex-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
amazon-linux-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
amazon-rpm-config	228-9.amzn2023.0.1	228-10.amzn2023.0.1
amazon-ssm-agent	3.3.2299.0-1.amzn2023	3.3.3050.0-1.amzn2023
beautifulsoup4	4.13.5	4.14.2
binutils	2.41-50.amzn2023.0.3	2.41-50.amzn2023.0.4
boto3	1.40.40	1.40.45
botocore	1.40.40	1.40.45
container-selinux	2.233.0-1.amzn2023	2.242.0-1.amzn2023
coreutils	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
coreutils-common	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4

Package Name	Previous Version	New Version
cpp14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
cryptography	46.0.1	46.0.2
cups-filesystem	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
cups-libs	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
dnf-plugin-support-info	1.7-1.amzn2023	1.8-1.amzn2023
expat	2.6.3-1.amzn2023.0.2	2.6.3-1.amzn2023.0.3
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
gcc14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
inspectorssmplugin	1.0.398-1	1.0.399-1
ipython	9.5.0	9.6.0
kernel-livepatch-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
kernel6.12	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-devel	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-headers	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023

Package Name	Previous Version	New Version
kernel6.12-libbpf	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-modules-extra	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-modules-extra-common	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-tools	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
libatomic	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgcc	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgccjit	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgfortran	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgomp	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libstdc++	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
llvmlite	0.45.0	0.45.1
narwhals	2.5.0	2.6.0
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1

Package Name	Previous Version	New Version
openjpeg2	2.4.0-11.amzn2023.0.6	2.5.2-5.amzn2023.0.1
pandas	2.3.2	2.3.3
platformdirs	4.4.0	4.2.2
python3-awscrt	0.26.1-1.amzn2023.0.1	0.27.6-1.amzn2023.0.1
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.3	1.90.0-1.amzn2023.0.1
sagemaker	2.251.1	2.252.0
selinux-policy	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
selinux-policy-targeted	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
system-release	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
typing-inspection	0.4.1	0.4.2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
kernel-livepatch-6.12.40-64.114
libasan8
libubsan

Package Name
nvidia-imex-570

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	aarch64
kernel_version	6.12.40-64.114.amzn2023.aarch64
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
fastapi	0.116.2	0.117.1
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396-1	1.0.398-1
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2

Package Name	Previous Version	New Version
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.18.0	0.19.2
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-05-22

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) 20250521

Added

- Initial release of Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Amazon Linux 2023) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate) complimented with NVIDIA Driver R570, CUDA=12.8, cuDNN=9.10, and PyTorch NCCL=2.26.2

AWS Deep Learning ARM64 AMI GPU PyTorch 2.7 (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.7-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260320
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260306
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260220

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260122
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260121
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260116
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260102
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251205
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251114
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251107
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251003
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20250926

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260320

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1050-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.2
nvidia_container_toolkit_version	1.19.0

ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-aws-6.8-tools-6.8.0-1050-6.8.0-1050.53~22.04.1
linux-headers-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-image-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-modules-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
linux-tools-6.8.0-1050-aws-6.8.0-1050.53~22.04.1
lustre-client-modules-6.8.0-1050-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.2.0	2.3.0
attrs	25.4.0	26.1.0
awscli	1.44.58	1.44.63
boto3	1.42.68	1.42.73
botocore	1.42.68	1.42.73
charset-normalizer	3.4.5	3.4.6
coreutils	8.32-4.1ubuntu1.2	8.32-4.1ubuntu1.3
databricks-sdk	0.99.0	0.102.0
deepdiff	8.6.1	8.6.2
devscripts	2.22.1ubuntu1	2.22.1ubuntu1.2
docker-compose-plugin	5.1.0-1~ubuntu.22.04~jammy	5.1.1-1~ubuntu.22.04~jammy
inspectorssmplugin	1.0.443	1.0.456
libssh-4	0.9.6-2ubuntu0.22.04.6	0.9.6-2ubuntu0.22.04.7
linux-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-headers-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1
linux-image-aws	6.8.0-1047.50~22.04.1	6.8.0-1050.53~22.04.1

Package Name	Previous Version	New Version
nvidia-ml-py	13.590.48	13.595.45
onnxruntime	1.24.3	1.24.4
platformdirs	4.9.4	4.4.0
protobuf	6.33.5	6.33.6
pyasn1	0.6.2	0.6.3
python3-cryptography	3.4.8-1ubuntu2.3	3.4.8-1ubuntu2.4
sagemaker	3.5.0	3.6.0
sagemaker-core	2.5.1	2.6.0
sagemaker-mlops	1.5.0	1.6.0
sagemaker-serve	1.5.0	1.6.0
sagemaker-train	1.5.0	1.6.0
snapd	2.73+ubuntu22.04	2.73+ubuntu22.04.1
uvicorn	0.41.0	0.42.0
vim-common	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-runtime	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
vim-tiny	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26
xxd	8.2.3995-1ubuntu2.24	8.2.3995-1ubuntu2.26

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1046
linux-aws-6.8-headers-6.8.0-1047
linux-aws-6.8-tools-6.8.0-1046
linux-aws-6.8-tools-6.8.0-1047
linux-headers-6.8.0-1046-aws
linux-headers-6.8.0-1047-aws
linux-image-6.8.0-1046-aws
linux-image-6.8.0-1047-aws
linux-modules-6.8.0-1046-aws
linux-modules-6.8.0-1047-aws
linux-tools-6.8.0-1046-aws
linux-tools-6.8.0-1047-aws
lustre-client-modules-6.8.0-1047-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260306

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	aarch64
kernel_version	6.8.0-1047-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1047-6.8.0-1047.50~22.04.1
```

linux-aws-6.8-tools-6.8.0-1047-6.8.0-1047.50~22.04.1
linux-headers-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-image-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-modules-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
linux-tools-6.8.0-1047-aws-6.8.0-1047.50~22.04.1
lustre-client-modules-6.8.0-1047-aws-2.15.6-1fsx28

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.8	1.6.9
SQLAlchemy	2.0.46	2.0.48
amazon-cloudwatch-agent	1.300064.0b1337-1	1.300064.1b1344-1
awscli	1.44.44	1.44.52
boto3	1.42.54	1.42.62
botocore	1.42.54	1.42.62
cachetools	7.0.1	7.0.3
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.5
cpp-12	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
databricks-sdk	0.91.0	0.96.0

Package Name	Previous Version	New Version
docker-ce-cli	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.2.1-1~ubuntu.22.04~jammy	29.3.0-1~ubuntu.22.04~jammy
docker-compose-plugin	5.0.2-1~ubuntu.22.04~jammy	5.1.0-1~ubuntu.22.04~jammy
fastapi	0.129.0	0.135.1
filelock	3.24.3	3.25.0
gcc-12-base	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
geventhttpclient	2.3.7	2.3.9
git-man	2.34.1-1ubuntu1.15	2.34.1-1ubuntu1.17
graphql-core	3.2.7	3.2.8
inspectorssmplugin	1.0.441	1.0.443
ipython	9.10.0	9.11.0
jupyterlab	4.5.4	4.5.5
libasan8	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libatomic1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcc1-0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libcurl3-gnutls	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22

Package Name	Previous Version	New Version
libcurl4	7.81.0-1ubuntu1.21	7.81.0-1ubuntu1.22
libgcc-12-dev	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgcc-s1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgfortran5	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libgomp1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libhwasan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libitm1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
liblsan0	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libnss3	3.98-0ubuntu0.22.04.2	3.98-0ubuntu0.22.04.3
libstdc++6	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libtsan2	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
libubsan1	12.3.0-1ubuntu1~22.04.2	12.3.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1

Package Name	Previous Version	New Version
linux-headers-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-image-aws	6.8.0-1046.49~22.04.1	6.8.0-1047.50~22.04.1
linux-libc-dev	5.15.0-170.180	5.15.0-171.181
linux-tools-common	5.15.0-170.180	5.15.0-171.181
lustre-client-utils	2.15.6-1fsx26	2.15.6-1fsx28
mlflow	3.10.0	3.10.1
mlflow-skinny	3.10.0	3.10.1
mlflow-tracing	3.10.0	3.10.1
narwhals	2.16.0	2.17.0
nltk	3.9.2	3.9.3
onnxruntime	1.24.2	1.24.3
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
platformdirs	4.9.2	4.4.0
python-dotenv	1.2.1	1.2.2
pytz	2025.2	2026.1.post1

Package Name	Previous Version	New Version
regex	2026.2.19	2026.2.28
sagemaker	3.4.1	3.5.0
sagemaker-core	2.4.1	2.5.0
sagemaker-mlops	1.4.1	1.5.0
sagemaker-serve	1.4.1	1.5.0
sagemaker-train	1.4.1	1.5.0
scipy	1.17.0	1.17.1
sosreport	4.9.2-0ubuntu0~22.04.1	4.10.2-0ubuntu0~22.04.1
tabulate	0.9.0	0.10.0
tritonclient	2.65.0	2.66.0
typer	0.24.0	0.24.1
u-boot-tools	2022.01+dfsg-2ubuntu2.6	2022.01+dfsg-2ubuntu2.7
yarl	1.22.0	1.23.0

Removed Packages

Package Name
lustre-client-modules-6.8.0-1046-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260220

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1046-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.2
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1046-6.8.0-1046.49~22.04.1
linux-aws-6.8-tools-6.8.0-1046-6.8.0-1046.49~22.04.1
linux-headers-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-image-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-modules-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
linux-tools-6.8.0-1046-aws-6.8.0-1046.49~22.04.1
lustre-client-modules-6.8.0-1046-aws-2.15.6-1fsx26
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.8
Flask	3.1.2	3.1.3
Werkzeug	3.1.5	3.1.6
async-lru	2.1.0	2.2.0
awscli	1.44.39	1.44.44
boto3	1.42.49	1.42.54
botocore	1.42.49	1.42.54
cachetools	6.2.6	7.0.1
cloud-init	25.2-0ubuntu1~22.04.1	25.3-0ubuntu1~22.04.1

Package Name	Previous Version	New Version
cpp-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
databricks-sdk	0.88.0	0.91.0
filelock	3.21.2	3.24.3
g++-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
gcc-11-base	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
gfortran-11	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
libasan6	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgcc-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgfortran-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
libgnutls30	3.7.3-4ubuntu1.7	3.7.3-4ubuntu1.8
libssh-4	0.9.6-2ubuntu0.22.04.5	0.9.6-2ubuntu0.22.04.6
libstdc++-11-dev	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3

Package Name	Previous Version	New Version
libtsan0	11.4.0-1ubuntu1~22.04.2	11.4.0-1ubuntu1~22.04.3
linux-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-headers-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
linux-image-aws	6.8.0-1045.47~22.04.1	6.8.0-1046.49~22.04.1
mlflow	3.9.0	3.10.0
mlflow-skinny	3.9.0	3.10.0
mlflow-tracing	3.9.0	3.10.0
numba	0.63.1	0.64.0
onnxruntime	1.24.1	1.24.2
platformdirs	4.7.1	4.9.2
pyarrow	22.0.0	23.0.1
pybind11	3.0.1	3.0.2
regex	2026.1.15	2026.2.19
typer	0.23.1	0.24.0
uvicorn	0.40.0	0.41.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1044
linux-aws-6.8-headers-6.8.0-1045
linux-aws-6.8-tools-6.8.0-1044
linux-aws-6.8-tools-6.8.0-1045
linux-headers-6.8.0-1044-aws
linux-headers-6.8.0-1045-aws
linux-image-6.8.0-1044-aws
linux-image-6.8.0-1045-aws
linux-modules-6.8.0-1044-aws
linux-modules-6.8.0-1045-aws
linux-tools-6.8.0-1044-aws
linux-tools-6.8.0-1045-aws
lustre-client-modules-6.8.0-1045-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
docker-compose-plugin	5.0.1-1~ubuntu.22.04~jammy	5.0.2-1~ubuntu.22.04~jammy
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
libglib2.0-0	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-data	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libxml2	2.9.13+dfsg-1ubuntu0.10	2.9.13+dfsg-1ubuntu0.11
more-itertools	10.3.0	10.8.0
nvidia-imex	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48

Package Name	Previous Version	New Version
pandas	2.3.3	3.0.0
platformdirs	4.5.1	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
python3-pyasn1	0.4.8-1	0.4.8-1ubuntu0.1
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.20	1.44.21
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
libc-dev-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-devtools	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6-dev	2.35-0ubuntu3.11	2.35-0ubuntu3.12
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6

Package Name	Previous Version	New Version
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
typing_extensions	4.12.2	4.15.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
awscli	1.44.15	1.44.20
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
docker-ce-cli	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.432	1.0.434
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpython3.10	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-stdlib	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libtasn1-6	4.18.0-4ubuntu0.1	4.18.0-4ubuntu0.2
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
python3-urllib3	1.26.5-1~exp1ubuntu0.4	1.26.5-1~exp1ubuntu0.5
python3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13

Package Name	Previous Version	New Version
python3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-venv	3.10.12-1~22.04.12	3.10.12-1~22.04.13
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1

nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.7	1.44.10
boto3	1.42.17	1.42.20
botocore	1.42.17	1.42.20
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430	1.0.431
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64

kernel_version	6.8.0-1044-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.4	1.44.7
boto3	1.42.14	1.42.17
botocore	1.42.14	1.42.17
fastapi	0.125.0	0.127.1
libxnvctrl0	590.44.01-0ubuntu1	590.48.01-0ubuntu1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
nbclient	0.10.3	0.10.4
platformdirs	4.5.1	4.2.2
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
typer	0.20.1	0.21.0
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200

operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1043-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5.1
nvidia_container_toolkit_version	1.18.1
ofi_nccl_version	1.16.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
anyio	4.11.0	4.12.0
awscli	1.43.5	1.43.10
beautifulsoup4	4.14.2	4.14.3
binutils-aarch64-linux-gnu	2.38-4ubuntu2.10	2.38-4ubuntu2.11
binutils-common	2.38-4ubuntu2.10	2.38-4ubuntu2.11
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-compose-plugin	2.40.3-1~ubuntu.22.04~jammy	5.0.0-1~ubuntu.22.04~jammy
fastapi	0.122.0	0.123.9
fsspec	2025.10.0	2025.12.0
gdrcopy	2.5-1	2.5.1

Package Name	Previous Version	New Version
gdrcopy-tests	2.5-1	2.5.1
gdrdrv-dkms	2.5-1	2.5.1
ipython	9.7.0	9.8.0
libbinutils	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf-nobfd0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libgdrapi	2.5-1	2.5.1
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1
linux-libc-dev	5.15.0-161.171	5.15.0-163.173
linux-tools-common	5.15.0-161.171	5.15.0-163.173
narwhals	2.12.0	2.13.0
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-imex	580.95.05-1	580.105.08-1
platformdirs	4.5.0	4.2.2
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0

Package Name	Previous Version	New Version
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
typing_extensions	4.12.2	4.15.0
urllib3	2.5.0	2.6.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
linux-aws-6.8-headers-6.8.0-1040
linux-aws-6.8-tools-6.8.0-1040
linux-headers-6.8.0-1040-aws
linux-image-6.8.0-1040-aws
linux-modules-6.8.0-1040-aws
linux-tools-6.8.0-1040-aws

Package Name
multidict
propcache
sniffio
wrapt
yarl

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251114

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1041-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.18.0
ofi_nccl_version	1.16.3

nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1041-6.8.0-1041.43~22.04.1
linux-aws-6.8-tools-6.8.0-1041-6.8.0-1041.43~22.04.1
linux-headers-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
linux-image-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
linux-modules-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
linux-tools-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
lustre-client-modules-6.8.0-1041-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
annotated-doc	0.0.3	0.0.4
awscli	1.42.69	1.42.74
boto3	1.40.69	1.40.74
botocore	1.40.69	1.40.74
certifi	2025.10.5	2025.11.12
containerd.io	1.7.29-1~ubuntu.22.04~jammy	2.1.5-1~ubuntu.22.04~jammy
docker-buildx-plugin	0.29.1-1~ubuntu.22.04~jammy	0.30.0-1~ubuntu.22.04~jammy
docker-ce-cli	28.5.2-1~ubuntu.22.04~jammy	29.0.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.2-1~ubuntu.22.04~jammy	29.0.1-1~ubuntu.22.04~jammy
fastapi	0.121.0	0.121.2
inspectorssmplugin	1.0.411	1.0.412
linux-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
linux-headers-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
linux-image-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
narwhals	2.10.2	2.11.0

Package Name	Previous Version	New Version
platformdirs	4.5.0	4.2.2
prettytable	3.16.0	3.17.0
pydantic	2.12.4	2.9.2
pydantic_core	2.41.5	2.23.4
safety-schemas	0.0.16	0.0.14
sagemaker-core	1.0.64	1.0.66
snapd	2.71+ubuntu22.04	2.72+ubuntu22.04
tblib	3.2.1	3.2.2
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
lustre-client-modules-6.8.0-1040-aws
lustre-client-modules-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.7
gdr_copy	2.5

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	aarch64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

ImageIO-2.37.2
annotated-doc-0.0.3
linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300059.0b1207-1	1.300061.0b1289-1
arrow	1.3.0	1.4.0
attrs	25.3.0	25.4.0
awscli	1.42.45	1.42.69
bind9-dnsutils	9.18.39-0ubuntu0.22.04.1	9.18.39-0ubuntu0.22.04.2

Package Name	Previous Version	New Version
bind9-host	9.18.39-0ubuntu0.22.04.1	9.18.39-0ubuntu0.22.04.2
bind9-libs	9.18.39-0ubuntu0.22.04.1	9.18.39-0ubuntu0.22.04.2
binutils-aarch64-linux-gnu	2.38-4ubuntu2.8	2.38-4ubuntu2.10
binutils-common	2.38-4ubuntu2.8	2.38-4ubuntu2.10
bleach	6.2.0	6.3.0
bokeh	3.8.0	3.8.1
boto3	1.40.45	1.40.69
botocore	1.40.45	1.40.69
certifi	2025.8.3	2025.10.5
charset-normalizer	3.4.3	3.4.4
cloudpickle	3.1.1	3.1.2
containerd.io	1.7.28-0~ubuntu.22.04~jammy	1.7.29-1~ubuntu.22.04~jammy
cryptography	46.0.2	46.0.3
distro-info-data	0.52ubuntu0.9	0.52ubuntu0.11
dkms	3.2.1-1ubuntu2	3.2.2-1ubuntu1
docker-ce-cli	28.5.0-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.0-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.3-1~ubuntu.22.04~jammy
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
fastapi	0.118.0	0.121.0
filelock	3.19.1	3.20.0
fsspec	2025.9.0	2025.10.0
graphql-core	3.2.6	3.2.7
gymnasium	1.2.1	1.2.2
idna	3.10	3.11
inspectorssmplugin	1.0.399	1.0.411
ipython	9.6.0	9.7.0
ipywidgets	8.1.7	8.1.8
java-11-amazon-corretto-jdk	11.0.28.6-1	11.0.29.7-1
jupyter_core	5.8.1	5.9.1
jupyterlab	4.4.9	4.4.10
jupyterlab_server	2.27.3	2.28.0
jupyterlab_widgets	3.0.15	3.0.16
lark	1.3.0	1.3.1
libbinutils	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf-nobfd0	2.38-4ubuntu2.8	2.38-4ubuntu2.10

Package Name	Previous Version	New Version
libctf0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libnccl-ofi	1.16.2-1	1.16.3-1
libnss-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libnvidia-container-tools	1.17.8-1	1.18.0-1
libnvidia-container1	1.17.8-1	1.18.0-1
libpam-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libssh-4	0.9.6-2ubuntu0.22.04.4	0.9.6-2ubuntu0.22.04.5
libsystemd0	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev-dev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev1	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libxml2	2.9.13+dfsg-1ubuntu0.9	2.9.13+dfsg-1ubuntu0.10
libxnvctrl0	580.95.05-0ubuntu1	580.105.08-0ubuntu1
lintian	2.114.0ubuntu1.6	2.114.0ubuntu1.7
linux-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-image-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-libc-dev	5.15.0-157.167	5.15.0-161.171

Package Name	Previous Version	New Version
linux-tools-common	5.15.0-157.167	5.15.0-161.171
lustre-client-modules-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
marshmallow	4.0.1	4.1.0
matplotlib	3.10.6	3.10.7
matplotlib-inline	0.1.7	0.2.1
narwhals	2.6.0	2.10.2
nvidia-container-toolkit-base	1.17.8-1	1.18.0-1
pillow	11.3.0	12.0.0
pip	25.2	25.3
psutil	7.1.0	7.1.3
pyarrow	21.0.0	22.0.0
pydantic	2.11.9	2.12.4
pydantic_core	2.33.2	2.41.5
python-json-logger	3.3.0	4.0.0
referencing	0.36.2	0.37.0
regex	2025.9.18	2025.11.3
rich	14.1.0	14.2.0
rpds-py	0.27.1	0.28.0
ruamel.yaml	0.18.15	0.18.16

Package Name	Previous Version	New Version
sagemaker	2.252.0	2.254.1
sagemaker-core	1.0.59	1.0.64
schema	0.7.7	0.7.8
scipy	1.16.2	1.16.3
shap	0.48.0	0.49.1
snapd	2.68.5+ubuntu22.04.1	2.71+ubuntu22.04
sosreport	4.8.2-0ubuntu0~22.04.2	4.9.2-0ubuntu0~22.04.1
starlette	0.48.0	0.49.3
systemd-sysv	249.11-0ubuntu3.16	249.11-0ubuntu3.17
tblib	3.1.0	3.2.1
termcolor	3.1.0	3.2.0
typer	0.19.2	0.20.0
typing_extensions	4.12.2	4.15.0
udev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
uvicorn	0.37.0	0.38.0
webcolors	24.11.1	25.10.0
websocket-client	1.8.0	1.9.0
widgetsnbextension	4.0.14	4.0.15
xyzservices	2025.4.0	2025.10.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
imageio
linux-aws-6.8-headers-6.8.0-1039
linux-aws-6.8-tools-6.8.0-1039
linux-headers-6.8.0-1039-aws
linux-image-6.8.0-1039-aws
linux-modules-6.8.0-1039-aws
linux-tools-6.8.0-1039-aws
lustre-client-modules-6.8.0-1039-aws
types-python-dateutil

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20251003

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.7
gdr_copy	2.5
supported_ec2_instances	G5g, P6e-GB200

Package Name	Version
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.8
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1039-aws
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.2
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.8/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
nvidia-imex-580.95.05-1
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
awscli	1.42.40	1.42.45
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.40	1.40.45
botocore	1.40.40	1.40.45
cloud-init	25.1.4-0ubuntu0~22.04.1	25.2-0ubuntu1~22.04.1
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
inspectorssmplugin	1.0.398	1.0.399
ipython	9.5.0	9.6.0
libcurl3-gnutls	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libcurl4	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21

Package Name	Previous Version	New Version
libssl-dev	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libssl3	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libtiff5	4.3.0-6ubuntu0.11	4.3.0-6ubuntu0.12
libxnvctrl0	580.82.07-0ubuntu1	580.95.05-0ubuntu1
linux-libc-dev	5.15.0-156.166	5.15.0-157.167
linux-tools-common	5.15.0-156.166	5.15.0-157.167
llvmlite	0.45.0	0.45.1
narwhals	2.5.0	2.6.0
needrestart	3.5-5ubuntu2.4	3.5-5ubuntu2.5
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1
open-vm-tools	12.3.5-3~ubuntu0.2 2.04.2	12.3.5-3~ubuntu0.2 2.04.3
pandas	2.3.2	2.3.3
platformdirs	4.4.0	4.2.2
sagemaker	2.251.1	2.252.0
typing-inspection	0.4.1	0.4.2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
nvidia-imex-570

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g, P6e-GB200
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1039-aws
framework_version	2.7
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.8/
nvidia_cuda_stack	/usr/local/cuda-12.8
gdr_copy	2.5
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.2
ebs_volume_type	gp3

Package Name	Version
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
lustre-client-modules-6.8.0-1039-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3

Package Name	Previous Version	New Version
anyio	4.10.0	4.11.0
awscli	1.42.35	1.42.40
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
fastapi	0.116.2	0.117.1
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396	1.0.398
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1

Package Name	Previous Version	New Version
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-156.166
linux-tools-common	5.15.0-153.163	5.15.0-156.166
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
platformdirs	4.4.0	4.2.2
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
python3-pip-whl	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.18.0	0.19.2
typing_extensions	4.12.2	4.15.0
uvicorn	0.35.0	0.37.0

Package Name	Previous Version	New Version
wcwidth	0.2.13	0.2.14

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1036-aws
linux-image-6.8.0-1036-aws
linux-modules-6.8.0-1036-aws
linux-tools-6.8.0-1036-aws
lustre-client-modules-6.8.0-1036-aws

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-05-22

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) 20250521

Added

- Initial release of Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.7 (Ubuntu 22.04) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate) complimented with NVIDIA Driver R570, CUDA=12.8, cuDNN=9.10, and PyTorch NCCL=2.26.2

AWS Deep Learning ARM64 AMI GPU PyTorch 2.6 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.${PATCH_VERSION} (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.6-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.? (Amazon
 Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260122
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260121
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260116
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260102
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251206
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251114
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251107
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251003
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20250926

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.6

nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0

Package Name	Previous Version	New Version
more-itertools	10.3.0	10.8.0
nvidia-ml-py	13.590.44	13.590.48
pandas	2.3.3	3.0.0
platformdirs	4.2.2	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
boto3	1.42.29	1.42.31
botocore	1.42.29	1.42.31
dill	0.4.0	0.4.1
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	aarch64
kernel_version	6.12.63-84.121.amzn2023.aarch64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.24	1.42.29
botocore	1.42.24	1.42.29
inspectorssmplugin	1.0.432-1	1.0.434-1
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
platformdirs	4.5.1	4.2.2
prometheus_client	0.23.1	0.24.1
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.16	1.42.19
botocore	1.42.16	1.42.19
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430-1	1.0.431-1
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	aarch64
kernel_version	6.12.58-82.121.amzn2023.aarch64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.13	1.42.16
botocore	1.42.13	1.42.16
fastapi	0.125.0	0.127.1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
nbclient	0.10.3	0.10.4
platformdirs	4.2.2	4.5.1
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
typer	0.20.1	0.21.0
typing_extensions	4.15.0	4.12.2
uvicorn	0.38.0	0.40.0
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251206

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
anyio	4.11.0	4.12.0
beautifulsoup4	4.14.2	4.14.3
boto3	1.41.5	1.42.4
botocore	1.41.5	1.42.4
fastapi	0.122.0	0.123.10
fsspec	2025.10.0	2025.12.0
ipython	9.7.0	9.8.0
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit	1.18.0-1	1.18.1-1
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
platformdirs	4.2.2	4.5.1
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2

Package Name	Previous Version	New Version
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
typing_extensions	4.15.0	4.12.2
urllib3	2.5.0	2.6.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
frozenlist
multidict
propcache
sniffio
wrapt
yarl

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251114

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.9.20251110
compute_architecture	aarch64
kernel_version	6.12.55-74.119.amzn2023.aarch64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.0
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.55-74.119-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300059.1-1.amzn2023	1.300060.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
annotated-doc	0.0.3	0.0.4
bokeh	3.8.0	3.8.1
boto3	1.40.68	1.40.73
botocore	1.40.68	1.40.73
certifi	2025.10.5	2025.11.12
containerd	2.1.4-1.amzn2023.0.1	2.1.4-1.amzn2023.0.2
dkms	3.2.1-182.amzn2023	3.3.0-183.amzn2023
dnf-plugin-support-info	1.8-1.amzn2023	1.9-1.amzn2023
docker	25.0.13-1.amzn2023.0.1	25.0.13-1.amzn2023.0.2
dwz	0.14-6.amzn2023.0.2	0.16-2.amzn2023.0.1
fastapi	0.121.0	0.121.2
inspectorssmplugin	1.0.411-1	1.0.412-1

Package Name	Previous Version	New Version
kernel-livepatch-repo-s3	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
kernel6.12	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-devel	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-headers	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-libbpf	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-modules-extra	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-modules-extra-common	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
kernel6.12-tools	6.12.53-69.119.amzn2023	6.12.55-74.119.amzn2023
libcap	2.73-1.amzn2023.0.3	2.73-1.amzn2023.0.4
libssh	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-config	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-devel	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
lustre-client	2.15.6-21.amzn2023	2.15.6-23.amzn2023
lz4-libs	1.9.4-1.amzn2023.0.2	1.9.4-1.amzn2023.0.3

Package Name	Previous Version	New Version
narwhals	2.10.2	2.11.0
pam	1.5.1-8.amzn2023.0.6	1.5.1-8.amzn2023.0.7
platformdirs	4.2.2	4.5.0
prettytable	3.16.0	3.17.0
pydantic	2.12.4	2.9.2
pydantic_core	2.41.5	2.23.4
python3	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-libs	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
runc	1.3.2-2.amzn2023.0.1	1.3.3-2.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
sagemaker-core	1.0.64	1.0.66
system-release	2023.9.20251105-0.amzn2023	2023.9.20251110-0.amzn2023
tblib	3.2.1	3.2.2
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-6.12.53-69.119

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.6.0
gdr_copy	
supported_ec2_instances	G5g
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.6
ssm_agent_version	3.3.3050.0
kernel_version	6.12.53-69.119.amzn2023.aarch64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	
operating_system	Amazon Linux 2023.9.20251105
default_cuda	/usr/local/cuda-12.6/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ImageIO-2.37.2
```

Updated Packages

Package Name	Previous Version	New Version
amazon-linux-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
bind-libs	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-license	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-utils	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
boto3	1.40.64	1.40.68
botocore	1.40.64	1.40.68
cloudpickle	3.1.1	3.1.2
fastapi	0.120.4	0.121.0

Package Name	Previous Version	New Version
gymnasium	1.2.1	1.2.2
inspectorssmplugin	1.0.404-1	1.0.411-1
ipython	9.6.0	9.7.0
kernel-livepatch-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
narwhals	2.10.1	2.10.2
pydantic	2.12.3	2.12.4
pydantic_core	2.41.4	2.41.5
regex	2025.10.23	2025.11.3
sagemaker-core	1.0.61	1.0.64
system-release	2023.9.20251027-0.amzn2023	2023.9.20251105-0.amzn2023
typing_extensions	4.12.2	4.15.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
imageio

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20251003

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.6.0
gdr_copy	
supported_ec2_instances	G5g
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.6
ssm_agent_version	3.3.3050.0
kernel_version	6.12.46-66.121.amzn2023.aarch64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.6/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.12.46-66.121-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
amazon-linux-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
amazon-rpm-config	228-9.amzn2023.0.1	228-10.amzn2023.0.1
amazon-ssm-agent	3.3.2299.0-1.amzn2023	3.3.3050.0-1.amzn2023
beautifulsoup4	4.13.5	4.14.2
binutils	2.41-50.amzn2023.0.3	2.41-50.amzn2023.0.4
boto3	1.40.40	1.40.45
botocore	1.40.40	1.40.45

Package Name	Previous Version	New Version
container-selinux	2.233.0-1.amzn2023	2.242.0-1.amzn2023
coreutils	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
coreutils-common	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
cpp14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
cryptography	46.0.1	46.0.2
cups-filesystem	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
cups-libs	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
dnf-plugin-support-info	1.7-1.amzn2023	1.8-1.amzn2023
expat	2.6.3-1.amzn2023.0.2	2.6.3-1.amzn2023.0.3
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
gcc14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
inspectorssmplugin	1.0.398-1	1.0.399-1
ipython	9.5.0	9.6.0
kernel-livepatch-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
kernel6.12	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023

Package Name	Previous Version	New Version
kernel6.12-devel	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-headers	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-libbpf	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-modules-extra	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-modules-extra-common	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
kernel6.12-tools	6.12.40-64.114.amzn2023	6.12.46-66.121.amzn2023
libgcc	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgccjit	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgfortran	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgomp	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libstdc++	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
llvmlite	0.45.0	0.45.1
narwhals	2.5.0	2.6.0
nltk	3.9.1	3.9.2

Package Name	Previous Version	New Version
numba	0.62.0	0.62.1
openjpeg2	2.4.0-11.amzn2023.0.6	2.5.2-5.amzn2023.0.1
pandas	2.3.2	2.3.3
python3-awscrt	0.26.1-1.amzn2023.0.1	0.27.6-1.amzn2023.0.1
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.3	1.90.0-1.amzn2023.0.1
sagemaker	2.251.1	2.252.0
selinux-policy	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
selinux-policy-targeted	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
system-release	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
typing-inspection	0.4.1	0.4.2
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-6.12.40-64.114
libasan8
libatomic

Package Name
libubsan

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	aarch64
kernel_version	6.12.40-64.114.amzn2023.aarch64
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.17.8
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
boto3	1.40.34	1.40.40
botocore	1.40.34	1.40.40
fastapi	0.116.2	0.117.1
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396-1	1.0.398-1
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2

Package Name	Previous Version	New Version
pyparsing	3.2.4	3.2.5
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.18.0	0.19.2
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-21

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) 20250221

Added

- Initial release of Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Amazon Linux 2023) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate/), complimented with NVIDIA Driver R570, CUDA=12.6, cuDNN=9.7, PyTorch NCCL=2.21.5.

AWS Deep Learning ARM64 AMI GPU PyTorch 2.6 (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 AMI OSS NVIDIA Driver GPU PyTorch 2.6.${PATCH_VERSION} (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.6-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.? (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260122
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260121

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260116
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260102
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251226
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251205
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251114
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251107
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251010
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20250926

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
docker-compose-plugin	5.0.1-1~ubuntu.22.04~jammy	5.0.2-1~ubuntu.22.04~jammy
importlib_metadata	8.0.0	8.7.1
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
libglib2.0-0	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8

Package Name	Previous Version	New Version
libglib2.0-data	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libxml2	2.9.13+dfsg-1ubuntu0.10	2.9.13+dfsg-1ubuntu0.11
more-itertools	10.3.0	10.8.0
nvidia-ml-py	13.590.44	13.590.48
pandas	2.3.3	3.0.0
platformdirs	4.5.1	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
python3-pyasn1	0.4.8-1	0.4.8-1ubuntu0.1
sagemaker	2.256.0	2.256.1
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.19	1.44.21
boto3	1.42.29	1.42.31
botocore	1.42.29	1.42.31
dill	0.4.0	0.4.1
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
libc-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-dev-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-devtools	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6-dev	2.35-0ubuntu3.11	2.35-0ubuntu3.12

Package Name	Previous Version	New Version
locales	2.35-0ubuntu3.11	2.35-0ubuntu3.12
multiprocess	0.70.18	0.70.19
pathos	0.3.4	0.3.5
platformdirs	4.5.1	4.2.2
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
pyarrow	22.0.0	23.0.0
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6
sagemaker-core	1.0.73	1.0.74
soupsieve	2.8.1	2.8.3
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260116

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
awscli	1.44.14	1.44.19
boto3	1.42.24	1.42.29
botocore	1.42.24	1.42.29
docker-ce-cli	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
inspectorssmplugin	1.0.432	1.0.434
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpython3.10	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13

Package Name	Previous Version	New Version
libpython3.10-stdlib	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libtasn1-6	4.18.0-4ubuntu0.1	4.18.0-4ubuntu0.2
platformdirs	4.2.2	4.5.1
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
python3-urllib3	1.26.5-1~exp1ubuntu0.4	1.26.5-1~exp1ubuntu0.5
python3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-venv	3.10.12-1~22.04.12	3.10.12-1~22.04.13
regex	2025.11.3	2026.1.15
sagemaker-core	1.0.72	1.0.73
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20260102

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.6	1.44.9
boto3	1.42.16	1.42.19
botocore	1.42.16	1.42.19
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430	1.0.431
json5	0.12.1	0.13.0
pillow	12.0.0	12.1.0
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
ruamel.yaml.clib

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251226

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1044-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.44.3	1.44.6
boto3	1.42.13	1.42.16
botocore	1.42.13	1.42.16
fastapi	0.125.0	0.127.1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
nbclient	0.10.3	0.10.4
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
typer	0.20.1	0.21.0
uvicorn	0.38.0	0.40.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251205

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g

operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1043-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.3	3.1.4
anyio	4.11.0	4.12.0
awscli	1.43.5	1.43.9
beautifulsoup4	4.14.2	4.14.3
binutils-aarch64-linux-gnu	2.38-4ubuntu2.10	2.38-4ubuntu2.11
binutils-common	2.38-4ubuntu2.10	2.38-4ubuntu2.11
boto3	1.41.5	1.42.3
botocore	1.41.5	1.42.3
docker-ce-cli	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-compose-plugin	2.40.3-1~ubuntu.22.04~jammy	5.0.0-1~ubuntu.22.04~jammy
fastapi	0.122.0	0.123.9
fsspec	2025.10.0	2025.12.0
ipython	9.7.0	9.8.0
libbinutils	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf-nobfd0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf0	2.38-4ubuntu2.10	2.38-4ubuntu2.11

Package Name	Previous Version	New Version
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
linux-libc-dev	5.15.0-161.171	5.15.0-163.173
linux-tools-common	5.15.0-161.171	5.15.0-163.173
narwhals	2.12.0	2.13.0
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
platformdirs	4.5.0	4.5.1
rpds-py	0.29.0	0.30.0
s3fs	2025.10.0	0.4.2
s3transfer	0.15.0	0.16.0
sagemaker	2.254.1	2.255.0
sagemaker-core	1.0.69	1.0.71
urllib3	2.5.0	2.6.0

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp

Package Name
aioitertools
aiosignal
frozenlist
linux-aws-6.8-headers-6.8.0-1040
linux-aws-6.8-tools-6.8.0-1040
linux-headers-6.8.0-1040-aws
linux-image-6.8.0-1040-aws
linux-modules-6.8.0-1040-aws
linux-tools-6.8.0-1040-aws
multidict
propcache
sniffio
wrapt
yarl

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251114

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G5g
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64

kernel_version	6.8.0-1041-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.18.0
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1041-6.8.0-1041.43~22.04.1
linux-aws-6.8-tools-6.8.0-1041-6.8.0-1041.43~22.04.1
linux-headers-6.8.0-1041-aws-6.8.0-1041.43~22.04.1

linux-image-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
linux-modules-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
linux-tools-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
lustre-client-modules-6.8.0-1041-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
annotated-doc	0.0.3	0.0.4
awscli	1.42.68	1.42.73
bokeh	3.8.0	3.8.1
boto3	1.40.68	1.40.73
botocore	1.40.68	1.40.73
certifi	2025.10.5	2025.11.12
containerd.io	1.7.29-1~ubuntu.22.04~jammy	2.1.5-1~ubuntu.22.04~jammy
docker-buildx-plugin	0.29.1-1~ubuntu.22.04~jammy	0.30.0-1~ubuntu.22.04~jammy
docker-ce-cli	28.5.2-1~ubuntu.22.04~jammy	29.0.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.2-1~ubuntu.22.04~jammy	29.0.1-1~ubuntu.22.04~jammy
fastapi	0.121.0	0.121.2
inspectorssmplugin	1.0.411	1.0.412

Package Name	Previous Version	New Version
linux-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
linux-headers-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
linux-image-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
narwhals	2.10.2	2.11.0
prettytable	3.16.0	3.17.0
pydantic	2.12.4	2.9.2
pydantic_core	2.41.5	2.23.4
safety-schemas	0.0.16	0.0.14
sagemaker-core	1.0.64	1.0.66
snapd	2.71+ubuntu22.04	2.72+ubuntu22.04
tblib	3.2.1	3.2.2
typing_extensions	4.15.0	4.12.2
zipp	3.23.0	3.19.2

Removed Packages

Package Name
lustre-client-modules-6.8.0-1040-aws
lustre-client-modules-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251107

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.6.0
supported_ec2_instances	G5g
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.6
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.6/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ImageIO-2.37.2
```

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300060.0b1248-1	1.300061.0b1289-1
awscli	1.42.63	1.42.68
boto3	1.40.63	1.40.68
botocore	1.40.63	1.40.68
cloudpickle	3.1.1	3.1.2
containerd.io	1.7.28-1~ubuntu.22.04~jammy	1.7.29-1~ubuntu.22.04~jammy
docker-ce-cli	28.5.1-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.1-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
fastapi	0.120.4	0.121.0
graphql-core	3.2.6	3.2.7
gymnasium	1.2.1	1.2.2
inspectorssmplugin	1.0.404	1.0.411
ipython	9.6.0	9.7.0
ipywidgets	8.1.7	8.1.8
jupyterlab_widgets	3.0.15	3.0.16
marshmallow	4.0.1	4.1.0
narwhals	2.10.1	2.10.2
platformdirs	4.2.2	4.5.0
psutil	7.1.2	7.1.3
pydantic	2.12.3	2.12.4
pydantic_core	2.41.4	2.41.5
regex	2025.10.23	2025.11.3
sagemaker-core	1.0.61	1.0.64
starlette	0.49.1	0.49.3
widgetsnbextension	4.0.14	4.0.15

Removed Packages

Package Name
imageio

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20251010

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.6.0
supported_ec2_instances	G5g
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.6
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.17.8
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.6/

Package Name	Version
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
attrs	25.3.0	25.4.0

Package Name	Previous Version	New Version
awscli	1.42.44	1.42.49
boto3	1.40.44	1.40.49
botocore	1.40.44	1.40.49
certifi	2025.8.3	2025.10.5
docker-ce-cli	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.0-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
fastapi	0.118.0	0.118.2
filelock	3.19.1	3.20.0
libnss-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libpam-systemd	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libsystemd0	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev-dev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
libudev1	249.11-0ubuntu3.16	249.11-0ubuntu3.17
linux-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-image-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1

Package Name	Previous Version	New Version
lustre-client-modules-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
matplotlib	3.10.6	3.10.7
narwhals	2.6.0	2.7.0
platformdirs	4.4.0	4.2.2
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
python-json-logger	3.3.0	4.0.0
rich	14.1.0	14.2.0
snapd	2.68.5+ubuntu22.04.1	2.71+ubuntu22.04
systemd-sysv	249.11-0ubuntu3.16	249.11-0ubuntu3.17
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
udev	249.11-0ubuntu3.16	249.11-0ubuntu3.17
websocket-client	1.8.0	1.9.0

Removed Packages

Package Name
lustre-client-modules-6.8.0-1039-aws

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1039-aws
framework_version	2.6.0
python_location	/opt/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.6/
nvidia_cuda_stack	/usr/local/cuda-12.6
nvidia_container_toolkit_version	1.17.8
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
lustre-client-modules-6.8.0-1039-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
awscli	1.42.34	1.42.39
boto3	1.40.34	1.40.39
botocore	1.40.34	1.40.39
click	8.2.1	8.3.0
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
fastapi	0.116.2	0.117.1
gymnasium	1.2.0	1.2.1

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.396	1.0.398
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-156.166
linux-tools-common	5.15.0-153.163	5.15.0-156.166
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
platformdirs	4.2.2	4.4.0
pydantic	2.9.2	2.11.9

Package Name	Previous Version	New Version
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
python3-pip-whl	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.17.5	0.19.2
typing_extensions	4.12.2	4.15.0
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1036-aws
linux-image-6.8.0-1036-aws
linux-modules-6.8.0-1036-aws
linux-tools-6.8.0-1036-aws

Package Name
lustre-client-modules-6.8.0-1036-aws

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-21

AMI name: Deep Learning ARM64 AMI OSS NVIDIA Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) 20250221

Added

- Initial release of Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.6.0 (Ubuntu 22.04) series. Including a Python virtual environment pytorch (source /opt/pytorch/bin/activate), complimented with NVIDIA Driver R570, CUDA=12.6, cuDNN=9.7, PyTorch NCCL=2.21.5.

Release Notes for Multi-Framework DLAMIs

> **Tip**
>
> If you use only one machine learning framework, then we recommend a single-framework DLAMI.

Multi-Framework DLAMI Release Notes

Below are the release notes for Multi-Framework X86 DLAMI:

GPU

- AWS Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2)

AWS Neuron

- Refer to the Neuron DLAMI User Guide

AWS Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version ${XX.X}
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version ${XX.X}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

OSS Nvidia Driver:

```
export SSM_PARAMETER=multi-framework-oss-nvidia-driver-amazon-linux-2/latest/ami-id &&
 \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

Proprietary Nvidia Driver:

```
export SSM_PARAMETER=multi-framework-proprietary-nvidia-driver-amazon-linux-2/latest/
ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

OSS Nvidia Driver:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version ??.?'
 'Name=state,Values=available' --query 'reverse(sort_by(Images, &CreationDate))
[:1].ImageId' --output text
```

Proprietary Nvidia Driver:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2)
 Version ??.?' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 85.1
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 85.0
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.9
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.8
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.6
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.4
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.2
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.1
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.9
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.9
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.9
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.9
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.4
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.2
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.1

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 85.1

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.251-248.983.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3883.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Werkzeug	3.1.6	3.1.7
anyio	4.12.1	4.13.0
boto3	1.42.72	1.42.74
botocore	1.42.73	1.42.75
contourpy	1.3.2	1.3.3
fastapi	0.135.1	0.135.2
fonttools	4.62.1	4.62.0
gunicorn	25.1.0	25.2.0
inspectorssmplugin	1.0.456-1	1.0.459-1
jsonpointer	3.0.0	3.1.1
narwhals	2.18.0	2.18.1

Package Name	Previous Version	New Version
nltk	3.9.3	3.9.4
pandocfilters	1.5.0	1.5.1
platformdirs	4.9.4	4.4.0
prompt_toolkit	3.0.52	3.0.51
python-dateutil	2.9.0.post0	2.9.0
python-json-logger	2.0.7	4.0.0
sagemaker	3.6.0	2.257.1
sagemaker-core	2.6.0	1.0.77
scipy	1.15.2	1.17.1
starlette	0.52.1	1.0.0
wcwidth	0.6.0	0.2.14

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 85.0

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64

kernel_version	5.10.251-248.983.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3883.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.251-248.983-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.7	1.6.9
Flask	3.1.2	3.1.3
Markdown	3.10.1	3.10.2
SQLAlchemy	2.0.46	2.0.48
Werkzeug	3.1.5	3.1.6
alembic	1.18.3	1.18.4
amazon-cloudwatch-agent	1.300062.1-1.amzn2	1.300064.1-1.amzn2
amazon-ssm-agent	3.3.3572.0-1.amzn2	3.3.3883.0-1.amzn2
async-lru	2.1.0	2.3.0
awscrt	0.29.1	0.31.2
bokeh	3.8.2	3.9.0
boto3	1.42.44	1.42.72
botocore	1.42.44	1.42.73
cachetools	6.2.6	7.0.5
certifi	2026.1.4	2026.2.25
charset-normalizer	3.4.4	3.4.6

Package Name	Previous Version	New Version
cryptography	46.0.4	46.0.5
curl	8.3.0-1.amzn2.0.11	8.3.0-1.amzn2.0.12
databricks-sdk	0.85.0	0.102.0
deepdiff	8.6.1	8.6.2
docker	25.0.14-1.amzn2.0.1	25.0.14-1.amzn2.0.2
ec2-hibinit-agent	1.0.10-1.amzn2	1.0.10-2.amzn2
expat	2.1.0-15.amzn2.0.5	2.1.0-15.amzn2.0.6
fastapi	0.128.3	0.135.1
filelock	3.20.3	3.25.2
fonttools	4.61.1	4.62.0
geventhttpclient	2.3.7	2.3.9
google-auth	2.48.0	2.49.1
graphql-core	3.2.7	3.2.8
greenlet	3.3.1	3.3.2
gunicorn	23.0.0	25.1.0
inspectorssmplugin	1.0.438-1	1.0.456-1
ipykernel	6.29.5	7.2.0
ipython	9.10.0	9.11.0
jmespath	1.0.1	1.1.0
jupyterlab	4.5.3	4.5.6

Package Name	Previous Version	New Version
kernel	5.10.247-246.989.amzn2	5.10.251-248.983.amzn2
kernel-devel	5.10.247-246.992.amzn2	5.10.251-248.983.amzn2
kernel-headers	5.10.247-246.992.amzn2	5.10.251-248.983.amzn2
kernel-tools	5.10.247-246.992.amzn2	5.10.251-248.983.amzn2
kiwisolver	1.4.9	1.5.0
lcms2	2.6-3.amzn2.0.2	2.6-3.amzn2.0.3
libcurl	8.3.0-1.amzn2.0.11	8.3.0-1.amzn2.0.12
libcurl-devel	8.3.0-1.amzn2.0.11	8.3.0-1.amzn2.0.12
libpng	1.5.13-8.amzn2.0.6	1.5.13-8.amzn2.0.7
libtiff	4.0.3-35.amzn2.0.28	4.0.3-35.amzn2.0.29
libxml2	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
libxml2-devel	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
libxml2-python	2.9.1-6.amzn2.5.23	2.9.1-6.amzn2.5.24
mlflow	3.9.0	3.10.1
mlflow-skinny	3.9.0	3.10.1
mlflow-tracing	3.9.0	3.10.1
narwhals	2.16.0	2.18.0
nltk	3.9.2	3.9.3

Package Name	Previous Version	New Version
notebook	7.5.3	7.5.5
numba	0.63.1	0.64.0
nvidia-ml-py	13.590.48	13.595.45
opencv-python	4.11.0.86	4.13.0.92
openssh	7.4p1-22.amzn2.0.10	7.4p1-22.amzn2.0.11
openssh-clients	7.4p1-22.amzn2.0.10	7.4p1-22.amzn2.0.11
openssh-server	7.4p1-22.amzn2.0.10	7.4p1-22.amzn2.0.11
openssl	1.0.2k-24.amzn2.0.16	1.0.2k-24.amzn2.0.17
openssl-libs	1.0.2k-24.amzn2.0.16	1.0.2k-24.amzn2.0.17
openssl11-devel	1.1.1zd-1.amzn2.0.1	1.1.1zf-1.amzn2.0.1
openssl11-libs	1.1.1zd-1.amzn2.0.1	1.1.1zf-1.amzn2.0.1
opentelemetry-api	1.39.1	1.40.0
opentelemetry-proto	1.39.1	1.40.0
opentelemetry-sdk	1.39.1	1.40.0
opentelemetry-semantic-conventions	0.60b1	0.61b0
pandocfilters	1.5.1	1.5.0
parso	0.8.5	0.8.6
pillow	12.1.0	12.1.1
platformdirs	4.5.1	4.9.4
plotly	6.5.2	6.6.0

Package Name	Previous Version	New Version
pyasn1	0.6.2	0.6.3
pybind11	3.0.1	3.0.2
pybind11-global	3.0.1	3.0.2
pyspnego	0.12.0	0.12.1
python	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-devel	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-dotenv	1.2.1	1.2.2
python-libs	2.7.18-1.amzn2.0.15	2.7.18-1.amzn2.0.16
python-pillow	2.0.0-23.gitd1c6db8.amzn2.0.16	2.0.0-23.gitd1c6db8.amzn2.0.17
python3	3.7.16-1.amzn2.0.22	3.7.16-1.amzn2.0.23
python3-libs	3.7.16-1.amzn2.0.22	3.7.16-1.amzn2.0.23
pytz	2025.2	2026.1.post1
regex	2026.1.15	2026.2.28
rich	14.3.2	14.3.3
ruamel.yaml.clib	0.2.12	0.2.15
sagemaker	3.4.0	2.257.1
sagemaker-core	1.0.75	2.6.0
sagemaker-mlops	1.4.0	1.6.0
sagemaker-serve	1.4.0	1.6.0
sagemaker-train	1.4.0	1.6.0

Package Name	Previous Version	New Version
scikit-learn	1.8.0	1.7.2
setuptools	80.10.2	81.0.0
smmap	5.0.2	5.0.3
tabulate	0.9.0	0.10.0
tenacity	9.1.3	9.1.4
tornado	6.5.4	6.5.5
tritonclient	2.65.0	2.66.0
typer	0.21.1	0.24.1
ujson	5.11.0	5.12.0
unicodedata2	17.0.0	17.0.1
uvicorn	0.40.0	0.42.0
wrapt	2.1.1	2.1.2
yarl	1.22.0	1.23.0

Removed Packages

Package Name
kernel-livepatch-5.10.247-246.989
kernel-livepatch-5.10.247-246.992
rsa

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.9

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.992.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.247-246.992-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.6	1.6.7
PySide6	6.10.1	6.10.2
babel	2.17.0	2.18.0
boto3	1.42.38	1.42.44
botocore	1.42.38	1.42.44
containerd	2.1.5-1.amzn2.0.4	2.1.5-1.amzn2.0.5
contourpy	1.3.3	1.3.2
databricks-sdk	0.82.0	0.85.0
fastapi	0.128.0	0.128.3
fsspec	2026.1.0	2026.2.0

Package Name	Previous Version	New Version
grpcio	1.76.0	1.78.0
inspectorssmplugin	1.0.437-1	1.0.438-1
ipykernel	7.1.0	6.29.5
ipython	9.9.0	8.37.0
java-11-amazon-corretto-headless	11.0.29+7-1.amzn2	11.0.30+7-1.amzn2
jmespath	1.0.1	1.1.0
jupyter_client	8.8.0	7.4.9
kernel-devel	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-headers	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
kernel-tools	5.10.247-246.989.amzn2	5.10.247-246.992.amzn2
libsoup	2.56.0-6.amzn2.0.5	2.56.0-6.amzn2.0.7
libtasn1	4.10-1.amzn2.0.7	4.10-1.amzn2.0.8
libxml2	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
libxml2-devel	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
libxml2-python	2.9.1-6.amzn2.5.21	2.9.1-6.amzn2.5.23
marshmallow	4.2.1	4.2.2
narwhals	2.15.0	2.16.0
opencv-python	4.11.0.86	4.13.0.92

Package Name	Previous Version	New Version
pandocfilters	1.5.0	1.5.1
pip	25.3	26.0.1
platformdirs	4.5.1	4.4.0
prompt_toolkit	3.0.51	3.0.52
pycparser	3.0	2.22
python-urllib3	1.25.9-1.amzn2.0.8	1.25.9-1.amzn2.0.9
python2-pyasn1	0.1.9-7.amzn2.0.2	0.1.9-7.amzn2.0.3
python3-pip	20.2.2-1.amzn2.0.14	20.2.2-1.amzn2.0.15
rich	14.3.1	14.3.2
runc	1.3.4-1.amzn2	1.3.4-2.amzn2
sagemaker	2.256.1	3.4.0
scipy	1.17.0	1.15.2
setuptools	80.10.2	81.0.0
shiboken6	6.10.1	6.10.2
starlette	0.50.0	0.52.1
tenacity	9.1.2	9.1.3
tqdm	4.67.2	4.67.3
tritonclient	2.64.0	2.65.0
wcwidth	0.2.14	0.6.0
wrapt	2.0.1	2.1.1

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.8

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.989.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3, /usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.2
efa_version	1.45.0
ofi_nccl_version	1.17.2

ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

prettytable-3.17.0
skops-0.13.0

Updated Packages

Package Name	Previous Version	New Version
alembic	1.18.2	1.18.3
boto3	1.42.36	1.42.38
botocore	1.42.37	1.42.39
contourpy	1.3.3	1.3.2
databricks-sdk	0.81.0	0.82.0
debugpy	1.8.18	1.8.20

Package Name	Previous Version	New Version
docutils	0.19	0.18.1
inspectorssmplugin	1.0.434-1	1.0.437-1
ipykernel	6.29.5	7.1.0
jmespath	1.1.0	1.0.1
jupyter_client	7.4.9	8.8.0
keras	3.13.1	3.13.2
mlflow	3.8.1	3.9.0
mlflow-skinny	3.8.1	3.9.0
mlflow-tracing	3.8.1	3.9.0
nbconvert	7.16.6	7.17.0
notebook	7.5.3	6.5.7
numpy	2.2.6	1.26.4
packaging	24.2	26.0
psutil	7.2.1	7.2.2
pycparser	3.0	2.22
python-json-logger	2.0.7	4.0.0
shap	0.49.1	0.50.0
tqdm	4.67.1	4.67.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.6

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.989.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.211.01
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
aiobotocore-3.1.1
aiohappyeyeballs-2.6.1
aiohttp-3.13.3
aioitertools-0.13.0
aiosignal-1.4.0
async-timeout-5.0.1
backports.zstd-1.3.0
frozenlist-1.8.0
multidict-6.7.0
propcache-0.4.1
yarl-1.22.0
```

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
async-lru	2.0.5	2.1.0
boto3	1.42.24	1.42.30
botocore	1.42.25	1.42.30
contourpy	1.3.3	1.3.2
debugpy	1.8.19	1.8.18
dill	0.4.0	0.4.1
gpg-pubkey	c87f5b1a-593863f8	d42d0685-62589a51
importlib_metadata	8.0.0	8.7.1
inspectorssmplugin	1.0.432-1	1.0.434-1
ipykernel	6.29.5	7.1.0
ipython	9.9.0	8.37.0
jaraco.context	5.3.0	6.1.0
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
keras	3.13.0	3.13.1

Package Name	Previous Version	New Version
kernel	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
libblkid	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
libfdisk	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
libmount	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
libsmartcols	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
libuuid	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
more-itertools	10.3.0	10.8.0
multiprocess	0.70.18	0.70.19
notebook	7.5.1	6.5.7
nvidia-fabric-manager	570.195.03-1	570.211.01-1
pandocfilters	1.5.1	1.5.0
pathos	0.3.4	0.3.5
platformdirs	4.5.1	4.4.0
plotly	6.5.1	6.5.2
pox	0.3.6	0.3.7
ppft	1.7.7	1.7.8
prometheus_client	0.23.1	0.24.1
pyparsing	3.3.1	3.3.2
python-dateutil	2.9.0	2.9.0.post0

Package Name	Previous Version	New Version
regex	2025.11.3	2026.1.15
ruamel.yaml	0.19.1	0.17.21
s3fs	0.4.2	2026.1.0
sagemaker-core	1.0.72	1.0.74
scikit-learn	1.7.2	1.8.0
scipy	1.15.2	1.17.0
setuptools	80.9.0	80.10.1
soupsieve	2.8.1	2.8.2
tomli	2.0.1	2.4.0
tomlkit	0.13.3	0.14.0
util-linux	2.30.2-2.amzn2.0.12	2.30.2-2.amzn2.0.13
wcwidth	0.2.14	0.3.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
grub2-tools-efi
grub2-tools-extra
inflect
jaraco.collections

Package Name
kernel-livepatch-5.10.245-245.983
typeguard

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.4

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.247-246.989.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.1

efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

grub2-tools-efi-2.06-14.amzn2.0.7
grub2-tools-extra-2.06-14.amzn2.0.7
kernel-livepatch-5.10.247-246.989-1.0-0.amzn2

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300060.1-1.amzn2	1.300062.1-1.amzn2
amazon-ssm-agent	3.3.3050.0-1.amzn2	3.3.3572.0-1.amzn2
anyio	4.12.0	4.12.1

Package Name	Previous Version	New Version
aws-cfn-bootstrap	2.0-36.amzn2	2.0-38.amzn2
boto3	1.42.19	1.42.23
botocore	1.42.19	1.42.23
certifi	2025.11.12	2026.1.4
containerd	2.1.5-1.amzn2.0.1	2.1.5-1.amzn2.0.3
cpp	7.3.1-17.amzn2	7.3.1-18.amzn2
docker	25.0.13-1.amzn2.0.2	25.0.14-1.amzn2.0.1
fsspec	2021.7.0	2025.12.0
gcc	7.3.1-17.amzn2	7.3.1-18.amzn2
gcc-c++	7.3.1-17.amzn2	7.3.1-18.amzn2
gcc-gfortran	7.3.1-17.amzn2	7.3.1-18.amzn2
glib2	2.56.1-9.amzn2.0.12	2.56.1-9.amzn2.0.13
grub2	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-common	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-efi-x64-ec2	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-pc	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-pc-modules	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-tools	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
grub2-tools-minimal	2.06-14.amzn2.0.6	2.06-14.amzn2.0.7
inspectorssmplugin	1.0.431-1	1.0.432-1

Package Name	Previous Version	New Version
kernel-devel	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
kernel-headers	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
kernel-tools	5.10.245-245.983.amzn2	5.10.247-246.989.amzn2
libatomic	7.3.1-17.amzn2	7.3.1-18.amzn2
libblkid	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libcilkrts	7.3.1-17.amzn2	7.3.1-18.amzn2
libfdisk	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libgcc	7.3.1-17.amzn2	7.3.1-18.amzn2
libgfortran	7.3.1-17.amzn2	7.3.1-18.amzn2
libgomp	7.3.1-17.amzn2	7.3.1-18.amzn2
libitm	7.3.1-17.amzn2	7.3.1-18.amzn2
libmount	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libmpx	7.3.1-17.amzn2	7.3.1-18.amzn2
libpng	1.5.13-8.amzn2.0.5	1.5.13-8.amzn2.0.6
libquadmath	7.3.1-17.amzn2	7.3.1-18.amzn2
libsanitizer	7.3.1-17.amzn2	7.3.1-18.amzn2
libsmartcols	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
libstdc++	7.3.1-17.amzn2	7.3.1-18.amzn2

Package Name	Previous Version	New Version
libuuid	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
marshmallow	4.1.2	4.2.0
narwhals	2.14.0	2.15.0
numpy	2.2.6	1.26.4
opencv-python	4.11.0.86	4.12.0.88
pandocfilters	1.5.0	1.5.1
platformdirs	4.2.2	4.5.1
prompt_toolkit	3.0.51	3.0.52
pycparser	2.23	2.22
python-urllib3	1.25.9-1.amzn2.0.5	1.25.9-1.amzn2.0.7
python3	3.7.16-1.amzn2.0.21	3.7.16-1.amzn2.0.22
python3-libs	3.7.16-1.amzn2.0.21	3.7.16-1.amzn2.0.22
runc	1.3.3-2.amzn2	1.3.4-1.amzn2
systemtap	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-client	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-devel	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
systemtap-runtime	4.5-1.amzn2.0.2	4.5-1.amzn2.0.3
tomli	2.3.0	2.0.1
tornado	6.5.4	6.5.3
typer	0.21.0	0.21.1

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2
util-linux	2.30.2-2.amzn2.0.11	2.30.2-2.amzn2.0.12
webkitgtk4	2.48.7-1.amzn2	2.50.4-1.amzn2
webkitgtk4-jsc	2.48.7-1.amzn2	2.50.4-1.amzn2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
aiobotocore
aiohappyeyeballs
aiohttp
aioitertools
aiosignal
async-timeout
frozenlist
multidict
propcache
yarl

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.2

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-245.983.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.16	1.42.18
botocore	1.42.17	1.42.19
contourpy	1.3.3	1.3.2
fastapi	0.127.1	0.128.0
inspectorssmplugin	1.0.430-1	1.0.431-1
numpy	1.26.4	2.2.6
onnx	1.19.1	1.20.0
opencv-python	4.11.0.86	4.12.0.88
prompt_toolkit	3.0.52	3.0.51
psutil	7.2.0	7.2.1
pycparser	2.23	2.22

Package Name	Previous Version	New Version
python-dateutil	2.9.0	2.9.0.post0
ruamel.yaml.clib	0.2.15	0.2.12
scipy	1.15.2	1.16.3
termcolor	3.2.0	3.3.0
tomli	2.3.0	2.0.1
tornado	6.5.3	6.5.4
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 84.1

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-245.983.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python

	3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.15	1.42.16
botocore	1.42.16	1.42.17
debugpy	1.8.19	1.8.18
fastapi	0.127.0	0.127.1
ipykernel	7.1.0	6.29.5
ipython	9.8.0	8.37.0
jupyter_client	7.4.9	8.7.0
opencv-python	4.12.0.88	4.11.0.86
platformdirs	4.2.2	4.5.1
prompt_toolkit	3.0.52	3.0.51
tornado	6.5.3	6.5.4
typer	0.20.1	0.21.0
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.9

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-241.976.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Markdown	3.9	3.10
astropy-iers-data	0.2025.10.27.0.39.10	0.2025.11.3.0.38.37
boto3	1.40.61	1.40.65
botocore	1.40.61	1.40.65
cloudpickle	3.1.1	3.1.2
docutils	0.19	0.21.2
fastapi	0.120.1	0.121.0
fsspec	2025.9.0	2025.10.0
graphql-core	3.2.6	3.2.7
gymnasium	1.2.1	1.2.2
inspectorssmplugin	1.0.402-1	1.0.408-1

Package Name	Previous Version	New Version
ipykernel	7.1.0	6.29.5
ipython	7.33.0	8.37.0
ipywidgets	8.1.7	8.1.8
jaraco.functools	4.0.1	4.3.0
jupyterlab_widgets	3.0.15	3.0.16
kernel	5.10.244-240.970.amzn2	5.10.245-241.976.amzn2
marshmallow	4.0.1	4.1.0
mock	4.0.3	5.2.0
narwhals	2.10.0	2.10.2
prompt_toolkit	3.0.51	3.0.52
psutil	7.1.2	7.1.3
pyarrow	20.0.0	22.0.0
pyspnego	0.12.0	0.11.2
regex	2025.10.23	2025.11.3
runc	1.3.1-1.amzn2	1.3.2-2.amzn2
s3fs	2025.9.0	0.4.2
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.60	1.0.62
shap	0.48.0	0.49.1
sparkmagic	0.23.0	0.21.0

Package Name	Previous Version	New Version
starlette	0.49.1	0.49.3
unicodedata2	16.0.0	17.0.0
urllib3	2.5.0	1.26.20
webcolors	24.11.1	25.10.0
widgetsnbextension	4.0.14	4.0.15
wrapt	1.17.3	2.0.0
xyzservices	2025.4.0	2025.10.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
aiobotocore
aioitertools
kernel-livepatch-5.10.244-240.970

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.9

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2

compute_architecture	x86_64
kernel_version	5.10.245-241.976.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Markdown	3.9	3.10
astropy-iers-data	0.2025.10.27.0.39.10	0.2025.11.3.0.38.37
boto3	1.40.61	1.40.65
botocore	1.40.61	1.40.65
cloudpickle	3.1.1	3.1.2
docutils	0.19	0.21.2
fastapi	0.120.1	0.121.0
fsspec	2025.9.0	2025.10.0
graphql-core	3.2.6	3.2.7
gymnasium	1.2.1	1.2.2
inspectorssmplugin	1.0.402-1	1.0.408-1
ipykernel	7.1.0	6.29.5
ipython	7.33.0	8.37.0
ipywidgets	8.1.7	8.1.8
jaraco.functools	4.0.1	4.3.0

Package Name	Previous Version	New Version
jupyterlab_widgets	3.0.15	3.0.16
kernel	5.10.244-240.970.amzn2	5.10.245-241.976.amzn2
marshmallow	4.0.1	4.1.0
mock	4.0.3	5.2.0
narwhals	2.10.0	2.10.2
prompt_toolkit	3.0.51	3.0.52
psutil	7.1.2	7.1.3
pyarrow	20.0.0	22.0.0
pyspnego	0.12.0	0.11.2
regex	2025.10.23	2025.11.3
runc	1.3.1-1.amzn2	1.3.2-2.amzn2
s3fs	2025.9.0	0.4.2
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.60	1.0.62
shap	0.48.0	0.49.1
sparkmagic	0.23.0	0.21.0
starlette	0.49.1	0.49.3
unicodedata2	16.0.0	17.0.0
urllib3	2.5.0	1.26.20
webcolors	24.11.1	25.10.0

Package Name	Previous Version	New Version
widgetsnbextension	4.0.14	4.0.15
wrapt	1.17.3	2.0.0
xyzservices	2025.4.0	2025.10.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
aiobotocore
aioitertools
kernel-livepatch-5.10.244-240.970

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.9

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.245-241.976.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python

	3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.195.03
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.18.0
efa_version	1.43.3
ofi_nccl_version	1.16.3
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Markdown	3.9	3.10
astropy-iers-data	0.2025.10.27.0.39.10	0.2025.11.3.0.38.37
boto3	1.40.61	1.40.65
botocore	1.40.61	1.40.65
cloudpickle	3.1.1	3.1.2
docutils	0.19	0.21.2
fastapi	0.120.1	0.121.0
fsspec	2025.9.0	2025.10.0
graphql-core	3.2.6	3.2.7
gymnasium	1.2.1	1.2.2
inspectorssmplugin	1.0.402-1	1.0.408-1
ipykernel	7.1.0	6.29.5
ipython	7.33.0	8.37.0
ipywidgets	8.1.7	8.1.8
jaraco.functools	4.0.1	4.3.0
jupyterlab_widgets	3.0.15	3.0.16
kernel	5.10.244-240.970.amzn2	5.10.245-241.976.amzn2
marshmallow	4.0.1	4.1.0
mock	4.0.3	5.2.0

Package Name	Previous Version	New Version
narwhals	2.10.0	2.10.2
prompt_toolkit	3.0.51	3.0.52
psutil	7.1.2	7.1.3
pyarrow	20.0.0	22.0.0
pyspnego	0.12.0	0.11.2
regex	2025.10.23	2025.11.3
runc	1.3.1-1.amzn2	1.3.2-2.amzn2
s3fs	2025.9.0	0.4.2
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.60	1.0.62
shap	0.48.0	0.49.1
sparkmagic	0.23.0	0.21.0
starlette	0.49.1	0.49.3
unicodedata2	16.0.0	17.0.0
urllib3	2.5.0	1.26.20
webcolors	24.11.1	25.10.0
widgetsnbextension	4.0.14	4.0.15
wrapt	1.17.3	2.0.0
xyzservices	2025.4.0	2025.10.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
aiobotocore
aioitertools
kernel-livepatch-5.10.244-240.970

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.9

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
gdr_copy	2.4.1
supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	570.195.03
python_location	

Package Name	Version
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
ssm_agent_version	3.3.3050.0
kernel_version	5.10.245-241.976.amzn2.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2
default_cuda	/usr/local/cuda-12.1/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Markdown	3.9	3.10
astropy-iers-data	0.2025.10.27.0.39.10	0.2025.11.3.0.38.37
boto3	1.40.61	1.40.65
botocore	1.40.61	1.40.65
cloudpickle	3.1.1	3.1.2
docutils	0.19	0.21.2
fastapi	0.120.1	0.121.0
fsspec	2025.9.0	2025.10.0
graphql-core	3.2.6	3.2.7
gymnasium	1.2.1	1.2.2
inspectorssmplugin	1.0.402-1	1.0.408-1
ipykernel	7.1.0	6.29.5
ipython	7.33.0	8.37.0
ipywidgets	8.1.7	8.1.8
jaraco.functools	4.0.1	4.3.0
jupyterlab_widgets	3.0.15	3.0.16
kernel	5.10.244-240.970.amzn2	5.10.245-241.976.amzn2
marshmallow	4.0.1	4.1.0
mock	4.0.3	5.2.0

Package Name	Previous Version	New Version
narwhals	2.10.0	2.10.2
prompt_toolkit	3.0.51	3.0.52
psutil	7.1.2	7.1.3
pyarrow	20.0.0	22.0.0
pyspnego	0.12.0	0.11.2
regex	2025.10.23	2025.11.3
runc	1.3.1-1.amzn2	1.3.2-2.amzn2
s3fs	2025.9.0	0.4.2
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.60	1.0.62
shap	0.48.0	0.49.1
sparkmagic	0.23.0	0.21.0
starlette	0.49.1	0.49.3
unicodedata2	16.0.0	17.0.0
urllib3	2.5.0	1.26.20
webcolors	24.11.1	25.10.0
widgetsnbextension	4.0.14	4.0.15
wrapt	1.17.3	2.0.0
xyzservices	2025.4.0	2025.10.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
aiobotocore
aioitertools
kernel-livepatch-5.10.244-240.970

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.4

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
gdr_copy	2.4.1
supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3

Package Name	Version
nvidia_driver	570.195.03
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
ssm_agent_version	3.3.3050.0
kernel_version	5.10.244-240.965.amzn2.x86_64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2
default_cuda	/usr/local/cuda-12.1/
compute_architecture	x86_64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Sphinx	7.3.7	8.1.3
aiohttp	3.12.15	3.13.0
alabaster	0.7.16	1.0.0
astropy-iers-data	0.2025.9.29.0.35.48	0.2025.10.6.0.35.25
attrs	25.3.0	25.4.0
boto3	1.40.44	1.40.48
botocore	1.40.44	1.40.48
certifi	2025.8.3	2025.10.5
efa	2.17.2-1.amzn2	2.17.3-1.amzn2
fastapi	0.118.0	0.118.2
filelock	3.19.1	3.20.0
importlib_metadata	8.7.0	8.0.0
ipykernel	6.30.1	6.29.5
jaraco.context	6.0.1	5.3.0
jupyter_client	7.4.9	8.6.3
libnccl-ofi	1.16.2-1.amzn2	1.16.3-1.amzn2
ml-dtypes	0.3.2	0.5.1
mock	4.0.3	5.2.0
more-itertools	10.8.0	10.3.0

Package Name	Previous Version	New Version
msgpack	1.1.1	1.1.2
narwhals	2.6.0	2.7.0
numexpr	2.7.3	2.13.1
onnx	1.18.0	1.19.0
platformdirs	4.4.0	4.5.0
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
pylint	3.3.8	3.3.9
pyspnego	0.11.2	0.12.0
ruamel.yaml	0.18.15	0.17.21
ruff	0.13.3	0.14.0
sparkmagic	0.21.0	0.23.0
tomli	2.2.1	2.0.1
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
urllib3	2.5.0	1.26.19
websocket-client	1.8.0	1.9.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
kernel-livepatch-5.10.242-239.961

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.2

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.244-240.965.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1

Package Name	Version
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-5.10.244-240.965-1.0-0.amzn2
```

Updated Packages

Package Name	Previous Version	New Version
MarkupSafe	3.0.2	3.0.3
Sphinx	8.1.3	7.3.7
alabaster	0.7.16	1.0.0

Package Name	Previous Version	New Version
amazon-ssm-agent	3.3.2299.0-1.amzn2	3.3.3050.0-1.amzn2
astropy-iers-data	0.2025.9.22.0.37.25	0.2025.9.29.0.35.48
asyncssh	2.21.0	2.21.1
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.39	1.40.41
botocore	1.40.40	1.40.41
cryptography	46.0.1	46.0.2
cups-libs	1.6.3-51.amzn2.0.5	1.6.3-51.amzn2.0.6
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
jaraco.functools	4.0.1	4.3.0
kernel	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-devel	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-headers	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
kernel-livepatch-5.10.242-239.961	1.0-0.amzn2	1.0-2.amzn2
kernel-tools	5.10.242-239.961.amzn2	5.10.244-240.965.amzn2
libsoup	2.56.0-6.amzn2.0.4	2.56.0-6.amzn2.0.5

Package Name	Previous Version	New Version
libtiff	4.0.3-35.amzn2.0.24	4.0.3-35.amzn2.0.25
lustre-client	2.12.8-13.amzn2	2.12.8-14.amzn2
microcode_ctl	2.1-47.amzn2.4.25	2.1-47.amzn2.4.26
mock	4.0.3	5.2.0
narwhals	2.5.0	2.6.0
notebook	7.4.6	7.4.7
numba	0.62.0	0.62.1
openjpeg2	2.4.0-5.amzn2.0.1	2.4.0-5.amzn2.0.2
platformdirs	4.2.2	4.4.0
prompt_toolkit	3.0.51	3.0.52
python-dateutil	2.9.0	2.9.0.post0
pytz	2024.1	2025.2
ruamel.yaml	0.18.15	0.17.21
sagemaker	2.251.1	2.252.0
sparkmagic	0.21.0	0.23.0
sympy	1.14.0	1.13.1
urllib3	2.5.0	1.26.19
zipp	3.23.0	3.19.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 83.1

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2
compute_architecture	x86_64
kernel_version	5.10.242-239.961.amzn2.x86_64
framework_version	82
conda_environments	- python3: Python 3.10 - tensorflow2_p310: TensorFlow 2.16, Python 3.10 - pytorch_p310: PyTorch 2.6, Python 3.10
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.1/
nvidia_cuda_stack	/usr/local/cuda-12.1,/usr/local/cuda-12.2,/usr/local/cuda-12.3,/usr/local/cuda-12.4
gdr_copy	2.4.1
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3

Package Name	Version
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Sphinx	7.3.7	8.1.3
alabaster	0.7.16	1.0.0
bcrypt	4.3.0	5.0.0
boto3	1.40.36	1.40.39
botocore	1.40.36	1.40.40
cffi	1.17.1	2.0.0
cryptography	45.0.7	46.0.1
flatbuffers	25.2.10	25.9.23

Package Name	Previous Version	New Version
grpcio	1.75.0	1.75.1
inspectorssmplugin	1.0.396-1	1.0.398-1
ipykernel	6.30.1	6.29.5
jaraco.functools	4.3.0	4.0.1
jupyterlab	4.4.7	4.4.9
llvmlite	0.44.0	0.45.0
mock	4.0.3	5.2.0
more-itertools	10.3.0	10.8.0
notebook	7.4.5	7.4.6
numba	0.61.2	0.62.0
packaging	25.0	24.2
platformdirs	4.4.0	4.2.2
pycurl	7.45.6	7.45.7
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyspnego	0.12.0	0.11.2
safety-schemas	0.0.14	0.0.16
sparkmagic	0.21.0	0.23.0
tomli	2.2.1	2.0.1
urllib3	2.5.0	1.26.19

Package Name	Previous Version	New Version
zope.interface	8.0	8.0.1

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-08-09

AMI name: Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 82.3

Added

- Added support for P5.4xlarge instances

Updated

- Upgraded EFA to 1.43.1

Release Date: 2025-04-22

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 81.2
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 81.2

Updated

- Upgraded Nvidia driver from version 550.144.03 to 550.163.01 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for April 2025

Release Date: 2025-02-17

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 80.6
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 80.4

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in under the "If you use a CUDA compatibility layer" tutorial here - https://docs.aws.amazon.com/sagemaker/latest/dg/inference-gpu-drivers.html#collapsible-cuda-compat

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-02-05

AMI names

- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 80.2
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 80.4

Updated

- Upgraded EFA version from 1.37.0 to 1.38.0
  - EFA now bundles the AWS OFI NCCL plugin, which can now be found in /opt/amazon/ofi-nccl rather than the original /opt/aws-ofi-nccl/. If updating your LD_LIBRARY_PATH variable, please ensure that you modify your OFI NCCL location properly.

Release Date: 2025-01-15

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 80.3
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 80.1

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2024-12-09

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 80.1
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 79.9

Updated

- Upgraded Nvidia Container Toolkit from version 1.17.0 to 1.17.3

Release Date: 2024-11-11

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 79.9
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 79.7

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.2 to 1.17.0, addressing the security vulnerability CVE-2024-0134.

Release Date: 2024-10-22

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 79.6
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 79.6

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVEs present in the NVIDIA GPU Display Security Bulletin for October 2024

Release Date: 2024-10-03

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 79.3
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 79.3

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2, addressing the security vulnerability CVE-2024-0133.

Release Date: 2024-07-18

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 78.6
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 78.7

Updated

- Removed aws_neuron_pytorch_p38 and aws_neuron_tensorflow_p38 conda environments from the Deep Learning Proprietary Nvidia Driver AMI.
- Removed Inf1 instance family support from the Deep Learning Proprietary Nvidia Driver AMI.

Release Date: 2024-06-06

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 78.5
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 78.5

Updated

- Updated Nvidia driver version to 535.183.01 from 535.161.08

Release Date: 2024-05-17

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 78.1
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 78.1

Updated

- Updated torchserve from v0.8.2 to v0.11.0 in the pytorch_p310 environment.

Release Date: 2024-05-07

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 78.0
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 78.0

Updated

- TensorFlow version updated from 2.15 to 2.16 in the tensorflow2_p310 environment.
- Updated EFA version from version 1.30 to version 1.32
- Updated AWS OFI NCCL plugin from version 1.7.4 to version 1.9.1
- Updated Nvidia container toolkit from version 1.13.5 to version 1.15.0

- **NOTE: Version 1.15.0 does NOT include the nvidia-container-runtime and nvidia-docker2 packages. It is recommended to use nvidia-container-toolkit packages directly by following Nvidia container toolkit docs.**

Added

- Added CUDA12.3 stack with CUDA12.3, NCCL 2.21.5, CuDNN 8.9.7

Removed

- Removed CUDA11.7, CUDA12.0 stacks present at /usr/local/cuda-11.7 and /usr/local/cuda-12.0
- Removed nvidia-docker2 package and its command nvidia-docker as part of Nvidia container toolkit update from 1.13.5 to 1.15.0 which does **NOT** include the nvidia-container-runtime and nvidia-docker2 packages.

Release Date: 2024-04-04

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 77.0
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 77.0

Updated

- PyTorch version updated from 2.1 to 2.2 in the pytorch_p310 environment.
- For OSS Nvidia driver DLAMIs, added G6 and Gr6 EC2 instances support. Please refer EC2 instance selection page for more information.

Release Date: 2024-03-29

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 76.8
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 76.9

Updated

- Updated Nvidia driver from 535.104.12 to 535.161.08 in both Proprietary and OSS Nvidia driver DLAMIs.
- The new supported instances for each DLAMI are as follows:
  - Deep Learning with Proprietary Nvidia Driver supports G3 (G3.16x not supported), P3, P3dn, Inf1
  - Deep Learning with OSS Nvidia Driver supports G4dn, G5, P4d, P4de.

Removed

- Removed G4dn, G5, G3.16x EC2 instances support from Proprietary Nvidia driver DLAMI.

Version 76.8

Release Date: 2024-03-20

AMI names

- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 76.8

Added

- Added awscliv2 in the AMI as /usr/local/bin/aws2, alongside awscliv1 as /usr/local/bin/aws on Proprietary Nvidia Driver AMI

Version 76.7

Release Date: 2024-03-20

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 76.7

Added

- Added awscliv2 in the AMI as /usr/local/bin/aws2, alongside awscliv1 as /usr/local/bin/aws on OSS Nvidia Driver AMI

- Updated OSS Nvidia driver DLAMI with G4dn and G5 support, based on it current support looks like below:
  - Deep Learning Base Proprietary Nvidia Driver AMI (Amazon Linux 2) supports P3, P3dn, G3, G5, G4dn.
  - Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2) supports G4dn, G5, P4, P5.
- OSS Nvidia driver DLAMIs are recommended to be used for G4dn, G5, P4, P5.

Version 76.3

Release Date: 2024-02-14

Updated

- Updated TensorFlow from 2.13.0 to 2.15.0
- Updated EFA from 1.29.0 to 1.30.0
- Updated AWS-OFI-NCCL from 1.7.3-aws to 1.7.4-aws
- Updated Nvidia Driver to 535.104.12 on Deep Learning Proprietary Nvidia Driver AMI
- Updated Nvidia Driver to 535.154.05 on Deep Learning OSS Nvidia Driver AMI

Version 76.2

Release Date: 2024-02-02

AMI names

- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 76.2
- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 76.4

Security

- Updated runc package version to consume patch for CVE-2024-21626.

Version 76.1

Release Date: 2023-12-27

Updated

- Updated PyTorch from 2.0.1 to 2.1.0

Version 75.1

Release Date: 2023-11-17

Please refer to Important changes to DLAMI

AMI names

- Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 75.1
- Deep Learning Proprietary Nvidia Driver AMI (Amazon Linux 2) Version 75.1

Added

- AWS Deep Learning AMI (DLAMI) is split into two separate groups:
  - DLAMI that uses Nvidia Proprietary Driver (to support P3, P3dn, G3, G5, G4dn).
  - DLAMI that uses Nvidia OSS Driver to enable EFA (to support P4, P5).
- Please refer to public announcement for more information on DLAMI split.
- AWS cli queries for above are in the release notes under bullet point **Query AMI-ID with AWSCLI (example region is us-east-1)**

Updated

- EFA updated from 1.26.1 to 1.29.0
- GDRCopy updated from 2.3 to 2.4

Software requirements for P6 instances

Below are the detailed requirements for running DLAMI on P6 instances.

Topics

- P6-B200 requirements
- P6e-GB200 requirements
- P6-B300 requirements
- Confirm GPU Functionality

P6-B200 requirements

The following software is required to operate P6-B200 instances:

Software	Minimum Version Requirement
Nvidia CUDA Toolkit	12.8
Nvidia Driver	R570
NVLINK 5	R570
Linux Kernel	6.1
Elastic Fabric Adapter (EFA)	1.41.0
AWS OFI NCCL Plugin	1.15.0

P6e-GB200 requirements

The following software is required to operate P6e-GB200 instances:

Software	Minimum Version Requirement
Nvidia CUDA Toolkit	12.8

Software	Minimum Version Requirement
Nvidia Driver	R570
Linux Kernel	6.12
Elastic Fabric Adapter (EFA)	1.42.0
AWS OFI NCCL Plugin	1.15.0

P6-B300 requirements

The following software is required to operate P6-B300 instances:

Software	Minimum Version Requirement
Nvidia CUDA Toolkit	13.0
Nvidia Driver	R580
NVLINK 5	R580
Linux Kernel	6.1
Elastic Fabric Adapter (EFA)	1.44.0
AWS OFI NCCL Plugin	1.17.1

Confirm GPU Functionality

To confirm functional GPUs:

1. Run the following Nvidia GPU Device Query Test.

```
$ /usr/local/cuda/extras/demo_suite/deviceQuery
```

2. Confirm the output from the Device Query Test. The following is example output for p6-B200.

```
/usr/local/cuda/extras/demo_suite/deviceQuery Starting...
```

```
 CUDA Device Query (Runtime API)

Detected 8 CUDA Capable device(s)
...
deviceQuery, CUDA Driver = CUDART, CUDA Driver Version = 12.8, CUDA Runtime Version
 = 12.8, NumDevs = 8, Device0 = NVIDIA B200, Device1 = NVIDIA B200, Device2 =
 NVIDIA B200, Device3 = NVIDIA B200, Device4 = NVIDIA B200, Device5 = NVIDIA B200,
 Device6 = NVIDIA B200, Device7 = NVIDIA B200
Result = PASS
```

To confirm functional NVIDIA Driver:

1. Run the Nvidia System Management Interface.

```
$ nvidia-smi
```

2. Confirm the output from the System Management Interface. The following is example output for p6-B200.

```
+-----------------------------------------------------------------------------------------
+
| NVIDIA-SMI 570.133.20             Driver Version: 570.133.20     CUDA Version:
 12.8     |
|-----------------------------------------+------------------------
+----------------------+
| GPU  Name                 Persistence-M | Bus-Id          Disp.A | Volatile
 Uncorr. ECC |
| Fan  Temp   Perf          Pwr:Usage/Cap |           Memory-Usage | GPU-Util
 Compute M. |
|                                         |                        |
 MIG M. |
|=========================================+========================
+======================|
|   0  NVIDIA B200                    Off |   00000000:51:00.0 Off |
     0 |
| N/A   32C    P0            145W / 1000W |       0MiB / 183359MiB |      0%
 Default |
|                                         |                        |
 Disabled |
+-----------------------------------------+------------------------
+----------------------+
```

```
|   1  NVIDIA B200                    Off |   00000000:52:00.0 Off |
     0 |
| N/A   30C    P0            140W / 1000W |       0MiB / 183359MiB |      0%
 Default |
|                                         |                        |
 Disabled |
+-----------------------------------------+------------------------
+----------------------+
|   2  NVIDIA B200                    Off |   00000000:62:00.0 Off |
     0 |
| N/A   31C    P0            139W / 1000W |       0MiB / 183359MiB |      0%
 Default |
|                                         |                        |
 Disabled |
+-----------------------------------------+------------------------
+----------------------+
|   3  NVIDIA B200                    Off |   00000000:63:00.0 Off |
     0 |
| N/A   29C    P0            139W / 1000W |       0MiB / 183359MiB |      0%
 Default |
|                                         |                        |
 Disabled |
+-----------------------------------------+------------------------
+----------------------+
|   4  NVIDIA B200                    Off |   00000000:75:00.0 Off |
     0 |
| N/A   31C    P0            141W / 1000W |       0MiB / 183359MiB |      0%
 Default |
|                                         |                        |
 Disabled |
+-----------------------------------------+------------------------
+----------------------+
|   5  NVIDIA B200                    Off |   00000000:76:00.0 Off |
     0 |
| N/A   31C    P0            141W / 1000W |       0MiB / 183359MiB |      0%
 Default |
|                                         |                        |
 Disabled |
+-----------------------------------------+------------------------
+----------------------+
|   6  NVIDIA B200                    Off |   00000000:86:00.0 Off |
     0 |
| N/A   32C    P0            141W / 1000W |       0MiB / 183359MiB |      0%
 Default |
```

```
|                                         |                        |
 Disabled |
+-----------------------------------------+------------------------
+----------------------+
|   7  NVIDIA B200                    Off |   00000000:87:00.0 Off |
     0 |
| N/A   30C    P0            138W / 1000W |       0MiB / 183359MiB |      0%
 Default |
|                                         |                        |
 Disabled |
+-----------------------------------------+------------------------
+----------------------+


+-----------------------------------------------------------------------------------------
+
| Processes:
       |
|  GPU   GI   CI              PID   Type   Process name                        GPU
 Memory |
|        ID   ID
 Usage      |
|
=========================================================================================|
|  No running processes found
       |
+-----------------------------------------------------------------------------------------
+
```

Note

If you experience any issues, contact AWS Support.

Getting started with DLAMI

This guide includes tips about picking the DLAMI that's right for you, selecting an instance type that fits your use case and budget, and Related information about DLAMI that describes custom setups that may be of interest.

If you're new to using AWS or using Amazon EC2, start with the Deep Learning AMI with Conda. If you're familiar with Amazon EC2 and other AWS services like Amazon EMR, Amazon EFS, or Amazon S3, and are interested in integrating those services for projects that need distributed training or inference, then check out Related information about DLAMI to see if one fits your use case.

We recommend that you check out Choosing a DLAMI to get an idea of which instance type might be best for your application.

Next step

Choosing a DLAMI

Choosing a DLAMI

We offer a range of DLAMI options as mentioned in the GPU DLAMI release notes. To help you select the correct DLAMI for your use case, we group images by the hardware type or functionality for which they were developed. Our top level groupings are:

- **DLAMI Type:** Base, Single-Framework, Multi-Framework (Conda DLAMI)
- **Compute Architecture:** x86-based, Arm64-based AWS Graviton
- **Processor Type:** GPU, CPU, Inferentia, Trainium
- **SDK:** CUDA, AWS Neuron
- **OS:** Amazon Linux, Ubuntu

The rest of the topics in this guide help further inform you and go into more details.

Topics

- CUDA Installations and Framework Bindings
- Deep Learning Base AMI

- Deep Learning AMI with Conda
- DLAMI Architecture Options
- DLAMI Operating System Options

Next Up

Deep Learning AMI with Conda

CUDA Installations and Framework Bindings

While deep learning is all pretty cutting edge, each framework offers "stable" versions. These stable versions may not work with the latest CUDA or cuDNN implementation and features. Your use case and the features you require can help you choose a framework. If you are not sure, then use the latest Deep Learning AMI with Conda. It has official `pip` binaries for all frameworks with CUDA, using whichever most recent version is supported by each framework. If you want the latest versions, and to customize your deep learning environment, use the Deep Learning Base AMI.

Look at our guide on Stable Versus Release Candidates for further guidance.

Choose a DLAMI with CUDA

The Deep Learning Base AMI has all available CUDA version series

The Deep Learning AMI with Conda has all available CUDA version series

> **Note**
>
> We no longer include the MXNet, CNTK, Caffe, Caffe2, Theano, Chainer, or Keras Conda environments in the AWS Deep Learning AMIs.

For specific framework version numbers, see the Deep Learning AMIs Release Notes

Choose this DLAMI type or learn more about the different DLAMIs with the **Next Up** option.

Choose one of the CUDA versions and review the full list of DLAMIs that have that version in the **Appendix**, or learn more about the different DLAMIs with the **Next Up** option.

Next Up

Deep Learning Base AMI

Related Topics

- For instructions on switching between CUDA versions, refer to the Using the Deep Learning Base AMI tutorial.

Deep Learning Base AMI

The Deep Learning Base AMI is like an empty canvas for deep learning. It comes with everything you need up until the point of the installation of a particular framework, and has your choice of CUDA versions.

Why to Choose the Base DLAMI

This AMI group is useful for project contributors who want to fork a deep learning project and build the latest. It's for someone who wants to roll their own environment with the confidence that the latest NVIDIA software is installed and working so they can focus on picking which frameworks and versions they want to install.

Choose this DLAMI type or learn more about the different DLAMIs with the **Next Up** option.

Next Up

DLAMI with Conda

Related Topics

- Using the Deep Learning Base AMI

Deep Learning AMI with Conda

The Conda DLAMI uses conda virtual environments, they are present either multi-framework or single framework DLAMIs. These environments are configured to keep the different framework installations separate and streamline switching between frameworks. This is great for learning and experimenting with all of the frameworks the DLAMI has to offer. Most users find that the new Deep Learning AMI with Conda is perfect for them.

They are updated often with the latest versions from the frameworks, and have the latest GPU drivers and software. They are generally referred to as the AWS Deep Learning AMIs in most

documents. These DLAMIs support Ubuntu 20.04, Ubuntu 22.04, Amazon Linux 2, Amazon Linux 2023 Operating systems. Operating systems support depends on support from upstream OS.

Stable Versus Release Candidates

The Conda AMIs use optimized binaries of the most recent formal releases from each framework. Release candidates and experimental features are not to be expected. The optimizations depend on the framework's support for acceleration technologies like Intel's MKL DNN, which speeds up training and inference on C5 and C4 CPU instance types. The binaries are also compiled to support advanced Intel instruction sets including but not limited to AVX, AVX-2, SSE4.1, and SSE4.2. These accelerate vector and floating point operations on Intel CPU architectures. Additionally, for GPU instance types, the CUDA and cuDNN are updated with whichever version the latest official release supports.

The Deep Learning AMI with Conda automatically installs the most optimized version of the framework for your Amazon EC2 instance upon the framework's first activation. For more information, refer to Using the Deep Learning AMI with Conda.

If you want to install from source, using custom or optimized build options, the Deep Learning Base AMIs might be a better option for you.

Python 2 Deprecation

The Python open source community has officially ended support for Python 2 on January 1, 2020. The TensorFlow and PyTorch community have announced that the TensorFlow 2.1 and PyTorch 1.4 releases are the last ones supporting Python 2. Previous releases of the DLAMI (v26, v25, etc) that contain Python 2 Conda environments continue to be available. However, we provide updates to the Python 2 Conda environments on previously published DLAMI versions only if there are security fixes published by the open-source community for those versions. DLAMI releases with the latest versions of the TensorFlow and PyTorch frameworks do not contain the Python 2 Conda environments.

CUDA Support

Specific CUDA version numbers can be found in the GPU DLAMI release notes.

Next Up

DLAMI Architecture Options

Related Topics

- For a tutorial on using a Deep Learning AMI with Conda, see the Using the Deep Learning AMI with Conda tutorial.

DLAMI Architecture Options

AWS Deep Learning AMIss are offered with either x86-based or Arm64-based AWS Graviton2 architectures.

For information about getting started with the ARM64 GPU DLAMI, see The ARM64 DLAMI. For more details on available instance types, see Choosing a DLAMI instance type.

Next Up

DLAMI Operating System Options

DLAMI Operating System Options

DLAMIs are offered in the following operating systems.

- Amazon Linux 2
- Amazon Linux 2023
- Ubuntu 20.04
- Ubuntu 22.04

Older versions of operating systems are available on deprecated DLAMIs. For more information on DLAMI deprecation, see Deprecations for DLAMI

Before choosing a DLAMI, assess what instance type you need and identify your AWS Region.

Next Up

Choosing a DLAMI instance type

Choosing a DLAMI instance type

More generally, consider the following when choosing an instance type for a DLAMI.

- If you're new to deep learning, then an instance with a single GPU might suit your needs.
- If you're budget conscious, then you can use CPU-only instances.
- If you're looking to optimize high performance and cost efficiency for deep learning model inference, then you can use instances with AWS Inferentia chips.
- If you're looking for a high performance GPU instance with an Arm64-based CPU architecture, then you can use the G5g instance type.
- If you're interested in running a pretrained model for inference and predictions, then you can attach an Amazon Elastic Inference to your Amazon EC2 instance. Amazon Elastic Inference gives you access to an accelerator with a fraction of a GPU.
- For high-volume inference services, a single CPU instance with a lot of memory, or a cluster of such instances, might be a better solution.
- If you're using a large model with a lot of data or a high batch size, then you need a larger instance with more memory. You can also distribute your model to a cluster of GPUs. You may find that using an instance with less memory is a better solution for you if you decrease your batch size. This may impact your accuracy and training speed.
- If you're interested in running machine learning applications using NVIDIA Collective Communications Library (NCCL) requiring high levels of inter-node communications at scale, you might want to use Elastic Fabric Adapter (EFA).

For more detail on instances, see EC2 Instance Types.

The following topics provide information about instance type considerations.

> **Important**
>
> The Deep Learning AMIs include drivers, software, or toolkits developed, owned, or provided by NVIDIA Corporation. You agree to use these NVIDIA drivers, software, or toolkits only on Amazon EC2 instances that include NVIDIA hardware.

Topics

- Pricing for the DLAMI
- DLAMI Region Availability
- Recommended GPU Instances
- Recommended CPU Instances

- Recommended Inferentia Instances
- Recommended Trainium Instances

Pricing for the DLAMI

The deep learning frameworks included in the DLAMI are free, and each has its own open-source licenses. Although the software included in the DLAMI is free, you still have to pay for the underlying Amazon EC2 instance hardware.

Some Amazon EC2 instance types are labeled as free. It is possible to run the DLAMI on one of these free instances. This means that using the DLAMI is entirely free when you only use that instance's capacity. If you need a more powerful instance with more CPU cores, more disk space, more RAM, or one or more GPUs, then you need an instance that is not in the free-tier instance class.

For more information about instance choice and pricing, see Amazon EC2 pricing.

DLAMI Region Availability

Each Region supports a different range of instance types and often an instance type has a slightly different cost in different Regions. DLAMIs are not available in every Region, but it is possible to copy DLAMIs to the Region of your choice. See Copying an AMI for more information. Note the Region selection list and be sure you pick a Region that's close to you or your customers. If you plan to use more than one DLAMI and potentially create a cluster, be sure to use the same Region for all of nodes in the cluster.

For a more info on Regions, visit Amazon EC2 service endpoints.

Next Up

Recommended GPU Instances

Recommended GPU Instances

We recommend a GPU instance for most deep learning purposes. Training new models is faster on a GPU instance than a CPU instance. You can scale sub-linearly when you have multi-GPU instances or if you use distributed training across many instances with GPUs.

The following instance types support the DLAMI. For information about GPU instance type options and their uses, see EC2 Instance Types and select **Accelerated Computing**.

> **Note**
>
> The size of your model should be a factor in choosing an instance. If your model exceeds an instance's available RAM, choose a different instance type with enough memory for your application.

- Amazon EC2 P6-B200 Instances have up to 8 NVIDIA Blackwell B200 GPUs.
- Amazon EC2 P6-B300 Instances have up to 8 NVIDIA Blackwell B300 GPUs.
- Amazon EC2 P6e-GB200 Instances have up to 4 NVIDIA Blackwell GB200 GPUs.
- Amazon EC2 P5e Instances have up to 8 NVIDIA Tesla H200 GPUs.
- Amazon EC2 P5 Instances have up to 8 NVIDIA Tesla H100 GPUs.
- Amazon EC2 P4 Instances have up to 8 NVIDIA Tesla A100 GPUs.
- Amazon EC2 P3 Instances have up to 8 NVIDIA Tesla V100 GPUs.
- Amazon EC2 G3 Instances have up to 4 NVIDIA Tesla M60 GPUs.
- Amazon EC2 G4 Instances have up to 4 NVIDIA T4 GPUs.
- Amazon EC2 G5 Instances have up to 8 NVIDIA A10G GPUs.
- Amazon EC2 G6 Instances have up to 8 NVIDIA L4 GPUs.
- Amazon EC2 G6e Instances have up to 8 NVIDIA L40S Tensor Core GPUs.
- Amazon EC2 G5g Instances have Arm64-based AWS Graviton2 processors.

DLAMI instances provide tooling to monitor and optimize your GPU processes. For more information about monitoring your GPU processes, see GPU Monitoring and Optimization.

For specific tutorials on working with G5g instances, see The ARM64 DLAMI.

Next Up

Recommended CPU Instances

Recommended CPU Instances

Whether you're on a budget, learning about deep learning, or just want to run a prediction service, you have many affordable options in the CPU category. Some frameworks take advantage of Intel's MKL DNN, which speeds up training and inference on C5 (not available in all Regions) CPU instance

types. For information about CPU instance types, see EC2 Instance Types and select **Compute Optimized**.

> **Note**
>
> The size of your model should be a factor in choosing an instance. If your model exceeds an instance's available RAM, choose a different instance type with enough memory for your application.

- Amazon EC2 C5 Instances have up to 72 Intel vCPUs. C5 instances excel at scientific modeling, batch processing, distributed analytics, high-performance computing (HPC), and machine and deep learning inference.

Next Up

Recommended Inferentia Instances

Recommended Inferentia Instances

AWS Inferentia instances are designed to provide high performance and cost efficiency for deep learning model inference workloads. Specifically, Inf2 instance types use AWS Inferentia chips and the AWS Neuron SDK, which is integrated with popular machine learning frameworks such as TensorFlow and PyTorch.

Customers can use Inf2 instances to run large scale machine learning inference applications such as search, recommendation engines, computer vision, speech recognition, natural language processing, personalization, and fraud detection, at the lowest cost in the cloud.

> **Note**
>
> The size of your model should be a factor in choosing an instance. If your model exceeds an instance's available RAM, choose a different instance type with enough memory for your application.

- Amazon EC2 Inf2 Instances have up to up to 16 AWS Inferentia chips and 100 Gbps of networking throughput.

For more information about getting started with AWS Inferentia DLAMIs, see The AWS Inferentia Chip With DLAMI.

Next Up

Recommended Trainium Instances

Recommended Trainium Instances

AWS Trainium instances are designed to provide high performance and cost efficiency for deep learning model inference workloads. Specifically, Trn1 instance types use AWS Trainium chips and the AWS Neuron SDK, which is integrated with popular machine learning frameworks such as TensorFlow and PyTorch.

Customers can use Trn1 instances to run large scale machine learning inference applications such as search, recommendation engines, computer vision, speech recognition, natural language processing, personalization, and fraud detection, at the lowest cost in the cloud.

> **Note**
>
> The size of your model should be a factor in choosing an instance. If your model exceeds an instance's available RAM, choose a different instance type with enough memory for your application.

- Amazon EC2 Trn1 Instances have up to up to 16 AWS Trainium chips and 100 Gbps of networking throughput.

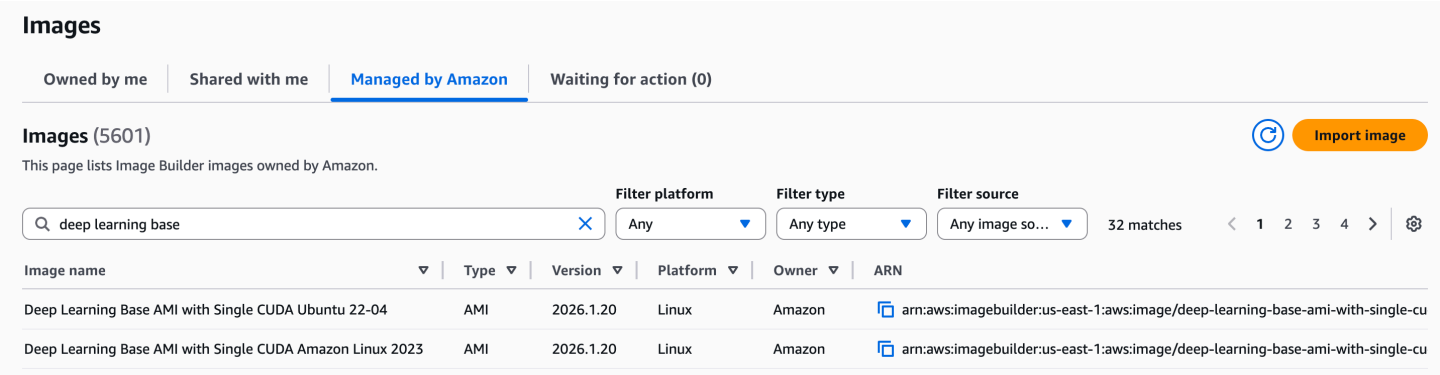
Using Deep Learning AMIs with EC2 Image Builder

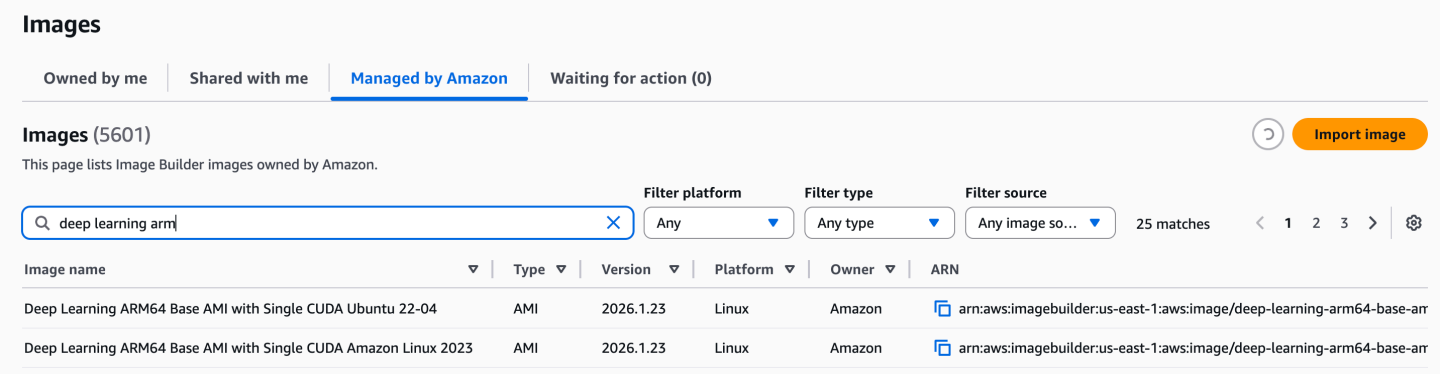
AWS Deep Learning AMIs (DLAMIs) are now available as Amazon-managed images on EC2 Image Builder service. This integration simplifies the usage of DLAMIs as Base Images and ensures the latest version is used at any given time.

Available DLAMIs

The following DLAMIs are available as Amazon-managed images found under the **Images section** of the service:

- Base AMI with Single CUDA (Amazon Linux 2023)
- Base AMI with Single CUDA (Ubuntu 22.04)
- ARM64 Base AMI with Single CUDA (Amazon Linux 2023)
- ARM64 Base AMI with Single CUDA (Ubuntu 22.04)



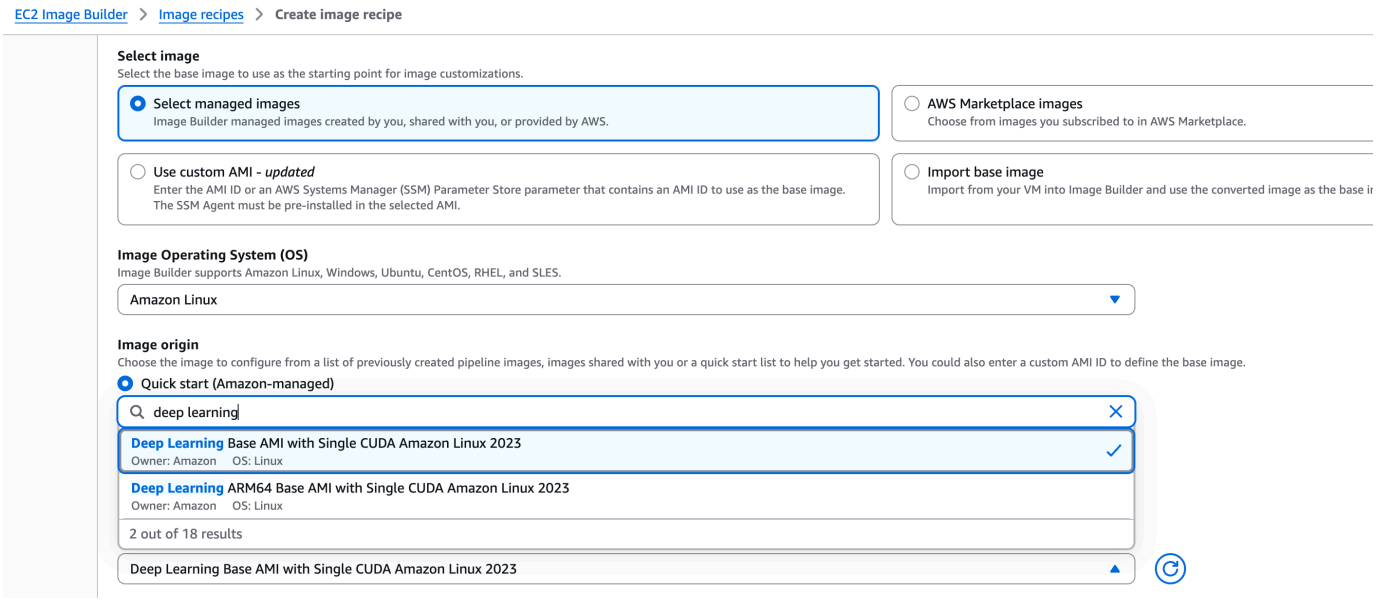


Using DLAMIs as Base Image

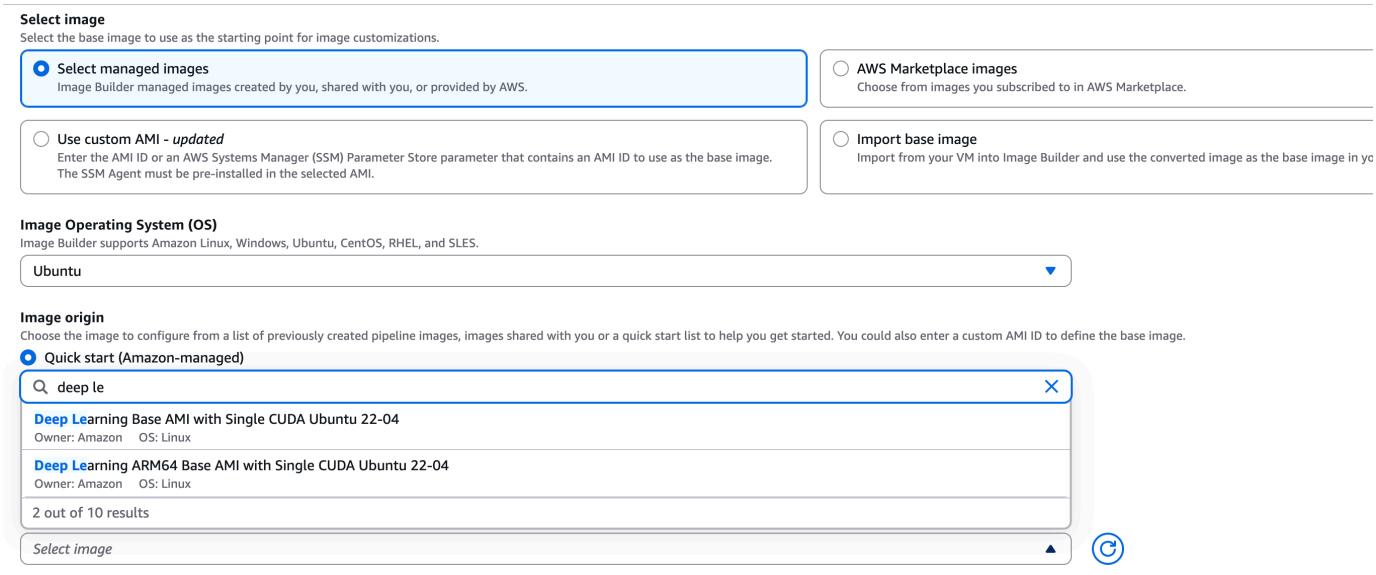
DLAMIs can be used as Base Image during Image Recipe creation.

1. Go to the Image Builder console
2. Select **Image recipes**
3. Select **Create image recipe**
4. In the **Base image** section, select **Quick Start (Amazon-managed)**
5. From the dropdown menu, choose one of the available DLAMIs based on your **Image Operating System (OS)** selection
   - If **Amazon Linux** is selected:
     - Deep Learning Base AMI with Single CUDA Amazon Linux 2023

- Deep Learning ARM64 Base AMI with Single CUDA Amazon Linux 2023



- If **Ubuntu** is selected:
  - Deep Learning Base AMI with Single CUDA Ubuntu 22-04
  - Deep Learning ARM64 Base AMI with Single CUDA Ubuntu 22-04



Setting up a DLAMI instance

After you choose a DLAMI and choose an Amazon Elastic Compute Cloud (Amazon EC2) instance type that you want to use, then you're ready to set up your new DLAMI instance.

If you haven't yet chosen a DLAMI and EC2 instance type, then see Getting started with DLAMI.

Topics

- Finding the ID of a DLAMI
- Launching a DLAMI instance
- Connecting to a DLAMI instance
- Setting up a Jupyter Notebook server on a DLAMI instance
- Cleaning up a DLAMI instance

Finding the ID of a DLAMI

Each DLAMI has a unique identifier (ID). When you launch a DLAMI instance using the Amazon EC2 console, you can optionally use the DLAMI ID to search for the DLAMI that you want to use. When you launch a DLAMI instance using the AWS Command Line Interface (AWS CLI), this ID is required.

You can find the ID for the DLAMI of your choice by using an AWS CLI command for either Amazon EC2 or Parameter Store, a capability of AWS Systems Manager. For instructions on installing and configuring the AWS CLI, see Get started with the AWS CLI in the *AWS Command Line Interface User Guide*.

Using Parameter Store

To find a DLAMI ID using ssm get-parameter

In the following **ssm get-parameter** command, for the `--name` option, the parameter name format is */aws/service/deeplearning/ami/$architecture/$ami_type/latest/ami-id*. In this name format, *architecture* can be either **x86_64** or **arm64**. Specify the *ami_type* by taking the DLAMI name and removing the keywords "deep", "learning", and "ami". AMI Name can be found in Deep Learning AMIs Release Notes.

> **Important**
>
> To use this command, the AWS Identity and Access Management (IAM) principal that you use must have the `ssm:GetParameter` permission. For more information about IAM principals, see the Additional resources section of **IAM roles** in the *IAM User Guide*.

- ```
  aws ssm get-parameter --name /aws/service/deeplearning/ami/x86_64/base-oss-nvidia-driver-ubuntu-22.04/latest/ami-id  \
  --region us-east-1 --query "Parameter.Value" --output text
  ```

  The output should look similar to the following:

  ```
  ami-09ee1a996ac214ce7
  ```

  > **Tip**
  >
  > For some currently supported DLAMI frameworks, you can find more specific example **ssm get-parameter** commands in Deep Learning AMIs Release Notes. Choose the link to the release notes of your chosen DLAMI, and then find its ID query in the release notes.

Using Amazon EC2 CLI

To find a DLAMI ID using ec2 describe-images

In the following **ec2 describe-images** command, for the value of the filter `Name=name`, enter the DLAMI name. You can specify a release version for a given framework, or you can get the latest release by replacing the version number with a question mark (?).

- ```
  aws ec2 describe-images --region us-east-1 --owners amazon \
  --filters 'Name=name,Values=Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04) ????????' 'Name=state,Values=available' \
  --query 'reverse(sort_by(Images, &amp;CreationDate))[:1].ImageId' --output text
  ```

  The output should look similar to the following:

```
ami-09ee1a996ac214ce7
```

> **Tip**
>
> For an example **ec2 describe-images** command that's specific to the DLAMI of your choice, see Deep Learning AMIs Release Notes. Choose the link to the release notes of your chosen DLAMI, and then find its ID query in the release notes.

Next step

Launching a DLAMI instance

Launching a DLAMI instance

After you find the ID of the DLAMI that you want to use to launch a DLAMI instance, you're ready to launch the instance. To launch it, you can use either the Amazon EC2 console or the AWS Command Line Interface (AWS CLI).

> **Note**
>
> For this walkthrough, we might make references specific to the Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 22.04). Even if you select a different DLAMI, you should be able to follow this guide.

EC2 console

> **Note**
>
> To accelerate high-performance computing (HPC) and machine learning applications, you can launch your DLAMI instance with an Elastic Fabric Adapter (EFA). For specific instructions, see Launching a AWS Deep Learning AMIs Instance With EFA.

1. Open the EC2 Console.

2. Note your current AWS Region in the top-most navigation. If this isn't your desired Region, then change this option before you continue. For more information, see Amazon EC2 service endpoints in the *Amazon Web Services General Reference*.
3. Choose **Launch Instance**.
4. Enter a name for your instance and select the DLAMI that is right for you.

   a. Find an existing DLAMI in **My AMIs** or choose **Quick Start.**

   b. Search by DLAMI ID. Browse the options then select your choice.
5. Choose an instance type. You can find the recommended instance families for your DLAMI in Deep Learning AMIs Release Notes. For general recommendations on DLAMI instance types, see Choosing a DLAMI instance type.
6. Choose **Launch Instance**.

AWS CLI

- To use the AWS CLI, you must have the ID of the DLAMI that you want to use, the AWS Region and EC2 instance type, and your security token information. Then, you can launch the instance using the **ec2 run-instances** AWS CLI command.

  For instructions on installing and configuring the AWS CLI, see Get started with the AWS CLI in the *AWS Command Line Interface User Guide*. For more information, including command examples, see Launch, list, and close Amazon EC2 instances for the AWS CLI.

After you launch your instance using either the Amazon EC2 console or AWS CLI, wait for the instance to be ready. This usually takes only a few minutes. You can verify the status of the instance in the Amazon EC2 console. For more information, see Status checks for Amazon EC2 instances in the *Amazon EC2 User Guide*.

Next step

Connecting to a DLAMI instance

Connecting to a DLAMI instance

After you launch a DLAMI instance and the instance is running, you can connect to it from a client (Windows, macOS, or Linux) using SSH. For instructions, see Connect to your Linux instance using SSH in the *Amazon EC2 User Guide*.

Keep a copy of the SSH login command handy in case you want to set up a Jupyter Notebook server after you log in. To connect to the Jupyter webpage, you use a variation of that command.

Next step

Setting up a Jupyter Notebook server on a DLAMI instance

Setting up a Jupyter Notebook server on a DLAMI instance

With a Jupyter Notebook server, you can create and run Jupyter notebooks from your DLAMI instance. With Jupyter notebooks, you can conduct machine learning (ML) experiments for training and inference while using the AWS infrastructure and accessing packages built into the DLAMI. For more information about Jupyter notebooks, see The Jupyter Notebook on the Jupyter User Documentation website.

To set up a Jupyter Notebook server, you must:

- Configure the Jupyter Notebook server on your DLAMI instance.
- Configure your client to connect to the Jupyter Notebook server. We provide configuration instructions for Windows, macOS, and Linux clients.
- Test the setup by logging in to the Jupyter Notebook server.

To complete these steps, follow the instructions in the following topics. After you've set up a Jupyter Notebook server, you can run the example notebook tutorials that ship in the DLAMIs. For more information, see Running Jupyter Notebook Tutorials.

Topics

- Securing the Jupyter Notebook server on a DLAMI instance
- Starting the Jupyter Notebook server on a DLAMI instance
- Connecting a client to the Jupyter Notebook server on a DLAMI instance
- Logging in to the Jupyter Notebook server on a DLAMI instance

Securing the Jupyter Notebook server on a DLAMI instance

To keep your Jupyter Notebook server secure, we recommend setting up a password and creating an SSL certificate for the server. To configure a password and SSL, first connect to your DLAMI instance, and then follow these instructions.

To secure the Jupyter Notebook server

1. Jupyter provides a password utility. Run the following command and enter your preferred password at the prompt.

   ```
   $ jupyter notebook password
   ```

   The output will look something like this:

   ```
   Enter password:
        Verify password:
        [NotebookPasswordApp] Wrote hashed password to /home/ubuntu/.jupyter/
   jupyter_notebook_config.json
   ```

2. Create a self-signed SSL certificate. Follow the prompts to fill out your locality as you see fit. You must enter `.` if you wish to leave a prompt blank. Your answers will not impact the functionality of the certificate.

   ```
   $ cd ~
        $ mkdir ssl
        $ cd ssl
        $ openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout mykey.key -out
    mycert.pem
   ```

> **Note**
>
> You might be interested in creating a regular SSL certificate that is third-party signed and does not cause the browser to give you a security warning. This process is much more involved. For more information, see Securing a notebook server in the Jupyter Notebook user documentation.

Next step

Starting the Jupyter Notebook server on a DLAMI instance

Starting the Jupyter Notebook server on a DLAMI instance

After you secure your Jupyter Notebook server with a password and SSL, you can start the server. Log in to your DLAMI instance and run the following command that uses the SSL certificate that you created previously.

```
$ jupyter notebook --certfile=~/ssl/mycert.pem --keyfile ~/ssl/mykey.key
```

With the server started, you can now connect to it via an SSH tunnel from your client computer. When the server runs, you will see some output from Jupyter confirming that the server is running. At this point, ignore the callout that you can access the server via a local host URL, because that won't work until you create the tunnel.

> **Note**
>
> Jupyter will handle switching environments for you when you switch frameworks using the Jupyter web interface. For more information, see Switching Environments with Jupyter.

Next step

Connecting a client to the Jupyter Notebook server on a DLAMI instance

Connecting a client to the Jupyter Notebook server on a DLAMI instance

After you start the Jupyter Notebook server on your DLAMI instance, configure your Windows, macOS, or Linux client to connect to the server. When you connect, you can create and access Jupyter notebooks on the server in your workspace and run your deep learning code on the server.

Prerequisites

Be sure you have the following, which you need to set up an SSH tunnel:

- The public DNS name of your Amazon EC2 instance. For more information, see Amazon EC2 instance hostname types in the *Amazon EC2 User Guide*.

- The key pair for the private key file. For more information about accessing your key pair, see Amazon EC2 key pairs and Amazon EC2 instances in the *Amazon EC2 User Guide*.

Connect from a Windows, macOS, or Linux client

To connect to your DLAMI instance from a Windows, macOS, or Linux client, follow the instructions for your client's operating system.

Windows

To connect to your DLAMI instance from a Windows client using SSH

1. Use an SSH client for Windows, such as PuTTY. For instructions, see Connect to your Linux instance using PuTTY in the *Amazon EC2 User Guide*. For other SSH connection options, see Connect to your Linux instance using SSH.
2. (Optional) Create an SSH tunnel to a running Jupyter server. Install Git Bash on your Windows client, and then follow the connection instructions for macOS and Linux clients.

macOS or Linux

To connect to your DLAMI instance from a macOS or Linux client using SSH

1. Open a terminal.
2. Run the following command to forward all requests on local port 8888 to port 8888 on your remote Amazon EC2 instance. Update the command by replacing the location of your key to access the Amazon EC2 instance and the public DNS name of your Amazon EC2 instance. Note, for an Amazon Linux AMI, the user name is `ec2-user` instead of `ubuntu`.

   ```
   $ ssh -i ~/mykeypair.pem -N -f -L 8888:localhost:8888 ubuntu@ec2-###-##-##-###.compute-1.amazonaws.com
   ```

   This command opens a tunnel between your client and the remote Amazon EC2 instance that is running the Jupyter Notebook server.

Next step

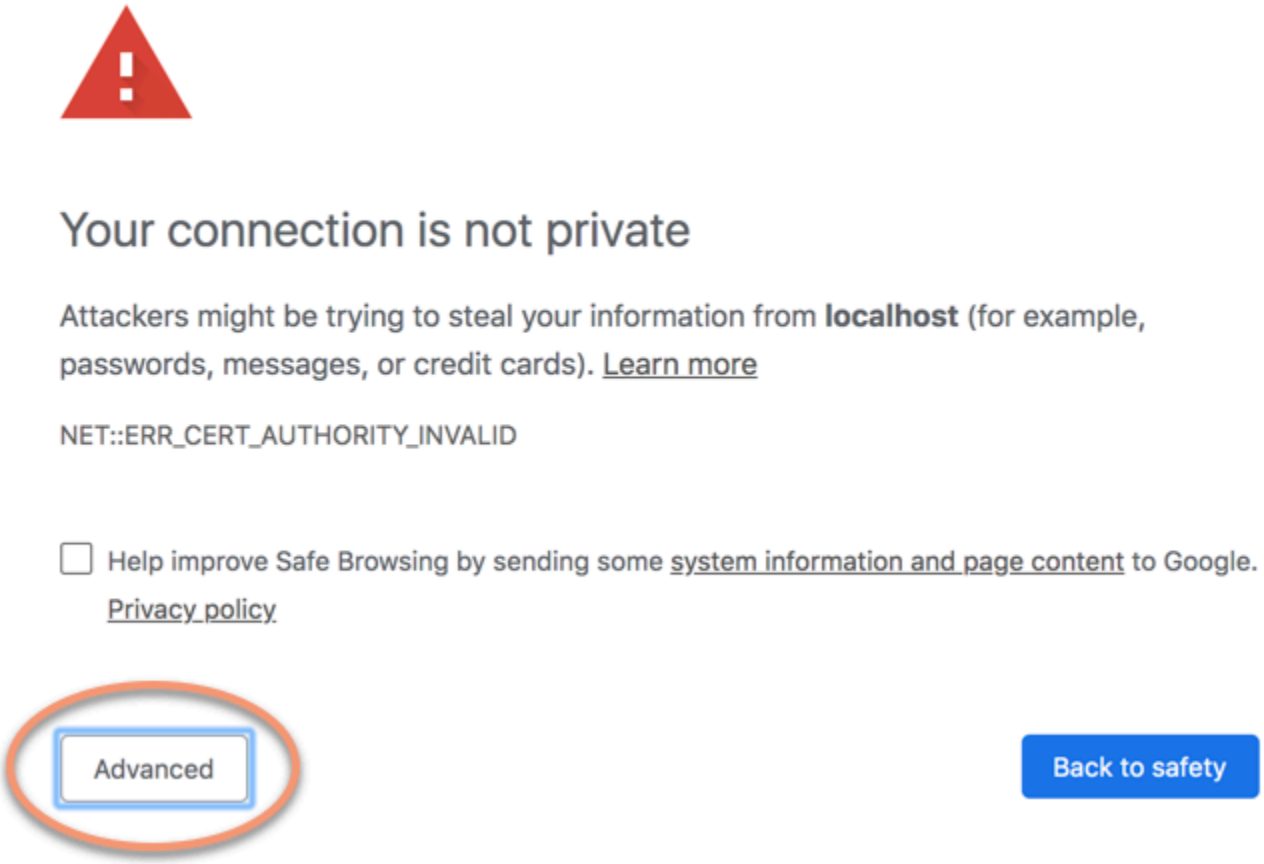
Logging in to the Jupyter Notebook server on a DLAMI instance

Logging in to the Jupyter Notebook server on a DLAMI instance

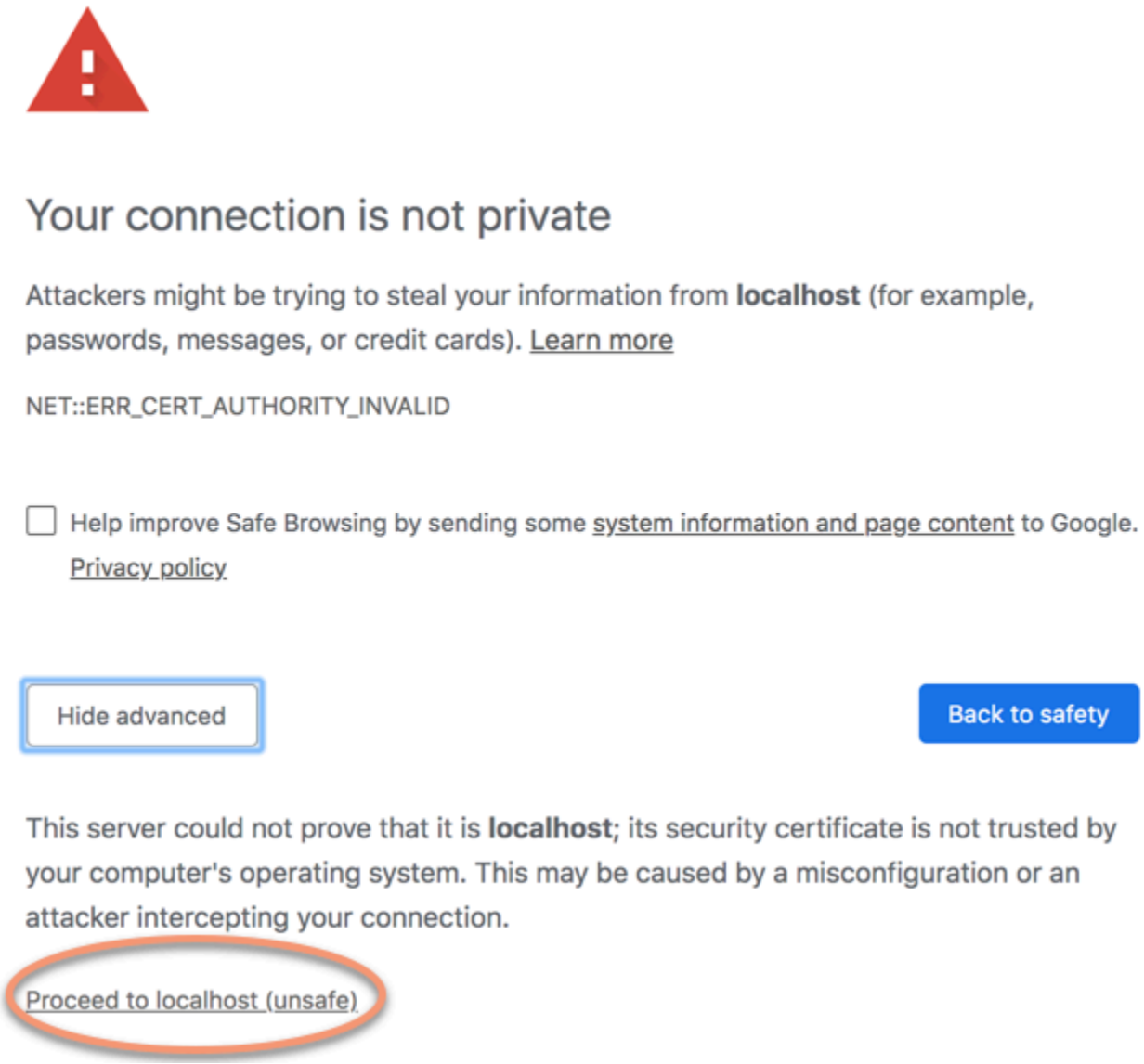
After you connect your client to the Jupyter Notebook server on your DLAMI instance, you can log in to the server.

To log in to the server in your browser

1. In the address bar of your browser, enter the following URL, or click on this link: https://localhost:8888
2. With a self-signed SSL certificate, your browser will warn you and prompt you to avoid continuing to visit the website.



Since you set this up yourself, it is safe to continue. Depending your browser you will get an "advanced", "show details", or similar button.



Click on this, then click on the "proceed to localhost" link. If the connection is successful, you see the Jupyter Notebook server webpage. At this point, you will be asked for the password you previously set up.

Now you have access to the Jupyter Notebook server that is running on the DLAMI instance. You can create new notebooks or run the provided Tutorials.

Cleaning up a DLAMI instance

When you no longer need your DLAMI instance, you can stop it or terminate it on Amazon EC2 to avoid incurring unexpected charges.

If you stop an instance, you can keep it around and start it later when you want to use it again. Your configurations, files, and other non-volatile information are stored in a volume on Amazon Simple Storage Service (Amazon S3). While your instance is stopped, you incur S3 charges for retaining the volume, but you don't incur charges for compute resources. When your start the instance again, it will mount that storage volume with your data.

If you terminate an instance, it's gone, and you cannot start it again. Of course, you won't incur any more charges for the compute resources with a terminated instance. However, your data still resides on Amazon S3, and you can continue to incur S3 charges. To prevent all further charges related to your terminated instance, you must also delete the storage volume on Amazon S3. For instructions, see Terminate Amazon EC2 instances in the *Amazon EC2 User Guide*.

For more information about Amazon EC2 instance states, such as `stopped` and `terminated`, see Amazon EC2 instance state changes in the *Amazon EC2 User Guide*.

Using a DLAMI

Topics

- Using the Deep Learning AMI with Conda
- Using the Deep Learning Base AMI
- Running Jupyter Notebook Tutorials
- Tutorials

The following sections describe how the Deep Learning AMI with Conda can be used to switch environments, run sample code from each of the frameworks, and run Jupyter so you can try out different notebook tutorials.

Using the Deep Learning AMI with Conda

Topics

- Introduction to the Deep Learning AMI with Conda
- Log in to Your DLAMI
- Start the TensorFlow Environment
- Switch to the PyTorch Python 3 Environment
- Removing Environments

Introduction to the Deep Learning AMI with Conda

Conda is an open source package management system and environment management system that runs on Windows, macOS, and Linux. Conda quickly installs, runs, and updates packages and their dependencies. Conda easily creates, saves, loads and switches between environments on your local computer.

The Deep Learning AMI with Conda has been configured for you to easily switch between deep learning environments. The following instructions guide you on some basic commands with conda. They also help you verify that the basic import of the framework is functioning, and that you can run a couple simple operations with the framework. You can then move on to more thorough

tutorials provided with the DLAMI or the frameworks' examples found on each frameworks' project site.

Log in to Your DLAMI

After you log in to your server, you will see a server "message of the day" (MOTD) describing various Conda commands that you can use to switch between the different deep learning frameworks. Below is an example MOTD. Your specific MOTD may vary as new versions of the DLAMI are released.

```
=============================================================================
        AMI Name: Deep Learning OSS Nvidia Driver AMI (Amazon Linux 2) Version 77
        Supported EC2 instances: G4dn, G5, G6, Gr6, P4d, P4de, P5
            * To activate pre-built tensorflow environment, run: 'source activate
 tensorflow2_p310'
            * To activate pre-built pytorch environment, run: 'source activate
 pytorch_p310'
            * To activate pre-built python3 environment, run: 'source activate python3'

        NVIDIA driver version: 535.161.08

    CUDA versions available: cuda-11.7 cuda-11.8 cuda-12.0 cuda-12.1 cuda-12.2

    Default CUDA version is 12.1

    Release notes: https://docs.aws.amazon.com/dlami/latest/devguide/appendix-ami-
release-notes.html
    AWS Deep Learning AMI Homepage: https://aws.amazon.com/machine-learning/amis/
    Developer Guide and Release Notes: https://docs.aws.amazon.com/dlami/latest/
devguide/what-is-dlami.html
    Support: https://forums.aws.amazon.com/forum.jspa?forumID=263
    For a fully managed experience, check out Amazon SageMaker at https://
aws.amazon.com/sagemaker
    =============================================================================
```

Start the TensorFlow Environment

> **Note**
>
> When you launch your first Conda environment, please be patient while it loads. The Deep Learning AMI with Conda automatically installs the most optimized version of the

framework for your EC2 instance upon the framework's first activation. You should not expect subsequent delays.

1. Activate the TensorFlow virtual environment for Python 3.

```
$ source activate tensorflow2_p310
```

2. Start the iPython terminal.

```
(tensorflow2_p310)$ ipython
```

3. Run a quick TensorFlow program.

```
import tensorflow as tf
hello = tf.constant('Hello, TensorFlow!')
sess = tf.Session()
print(sess.run(hello))
```

You should see "Hello, Tensorflow!"

Next Up

Running Jupyter Notebook Tutorials

Switch to the PyTorch Python 3 Environment

If you're still in the iPython console, use `quit()`, then get ready to switch environments.

- Activate the PyTorch virtual environment for Python 3.

```
$ source activate pytorch_p310
```

Test Some PyTorch Code

To test your installation, use Python to write PyTorch code that creates and prints an array.

1. Start the iPython terminal.

```
(pytorch_p310)$ ipython
```

2. Import PyTorch.

```
import torch
```

You might see a warning message about a third-party package. You can ignore it.

3. Create a 5x3 matrix with the elements initialized randomly. Print the array.

```
x = torch.rand(5, 3)
print(x)
```

Verify the result.

```
tensor([[0.3105, 0.5983, 0.5410],
        [0.0234, 0.0934, 0.0371],
        [0.9740, 0.1439, 0.3107],
        [0.6461, 0.9035, 0.5715],
        [0.4401, 0.7990, 0.8913]])
```

Removing Environments

If you run out of space on the DLAMI, you can choose to uninstall Conda packages that you are not using:

```
conda env list
conda env remove --name <env_name>
```

Using the Deep Learning Base AMI

Using the Deep Learning Base AMI

The Base AMI comes with a foundational platform of GPU drivers and acceleration libraries to deploy your own customized deep learning environment. By default the AMI is configured with any one NVIDIA CUDA version environment. You can also switch between different versions of CUDA. Refer to the following instructions for how to do this.

Configuring CUDA Versions

You can verify the CUDA version by running NVIDIA's `nvcc` program.

```
nvcc --version
```

You can select and verify a particular CUDA version with the following bash command:

```
sudo rm /usr/local/cuda
sudo ln -s /usr/local/cuda-12.0 /usr/local/cuda
```

For more information, see the Base DLAMI release notes.

Running Jupyter Notebook Tutorials

Tutorials and examples ship with each of the deep learning projects' source and in most cases they will run on any DLAMI. If you chose the Deep Learning AMI with Conda, you get the added benefit of a few hand-picked tutorials already set up and ready to try out.

> **Important**
>
> To run the Jupyter notebook tutorials installed on the DLAMI, you will need to Setting up a Jupyter Notebook server on a DLAMI instance.

Once the Jupyter server is running, you can run the tutorials through your web browser. If you are running the Deep Learning AMI with Conda or if you have set up Python environments, you can switch Python kernels from the Jupyter notebook interface. Select the appropriate kernel before trying to run a framework-specific tutorial. Further examples of this are provided for users of the Deep Learning AMI with Conda.

> **Note**
>
> Many tutorials require additional Python modules that may not be set up on your DLAMI. If you get an error like `"xyz module not found"`, log in to the DLAMI, activate the environment as described above, then install the necessary modules.

> **Tip**
>
> Deep learning tutorials and examples often rely on one or more GPUs. If your instance type doesn't have a GPU, you may need to change some of the example's code to get it to run.

Navigating the Installed Tutorials

Once you're logged in to the Jupyter server and can see the tutorials directory (on Deep Learning AMI with Conda only), you will be presented with folders of tutorials by each framework name. If you don't see a framework listed, then tutorials are not available for that framework on your current DLAMI. Click on the name of the framework to see the listed tutorials, then click a tutorial to launch it.

The first time you run a notebook on the Deep Learning AMI with Conda, it will want to know which environment you would like to use. It will prompt you to select from a list. Each environment is named according to this pattern:

`Environment (conda_framework_python-version)`

For example, you might see `Environment (conda_mxnet_p36)`, which signifies that the environment has MXNet and Python 3. The other variation of this would be `Environment (conda_mxnet_p27)`, which signifies that the environment has MXNet and Python 2.

> **Tip**
>
> If you're concerned about which version of CUDA is active, one way to see it is in the MOTD when you first log in to the DLAMI.

Switching Environments with Jupyter

If you decide to try a tutorial for a different framework, be sure to verify the currently running kernel. This info can be seen in the upper right of the Jupyter interface, just below the logout button. You can change the kernel on any open notebook by clicking the Jupyter menu item **Kernel**, then **Change Kernel**, and then clicking the environment that suits the notebook you're running.

At this point you'll need to rerun any cells because a change in the kernel will erase the state of anything you've run previously.

> **Tip**
>
> Switching between frameworks can be fun and educational, however you can run out of memory. If you start running into errors, look at the terminal window that has the Jupyter server running. There are helpful messages and error logging here, and you may see an out-of-memory error. To fix this, you can go to the home page of your Jupyter server, click the **Running** tab, then click **Shutdown** for each of the tutorials that are probably still running in the background and eating up all of your memory.

Tutorials

The following are tutorials on how to use the Deep Learning AMI with Conda's software.

Topics

- Activating Frameworks
- Distributed training using Elastic Fabric Adapter
- GPU Monitoring and Optimization
- The AWS Inferentia Chip With DLAMI
- The ARM64 DLAMI
- Inference
- Model Serving

Activating Frameworks

The following are the deep learning frameworks installed on the Deep Learning AMI with Conda. Click on a framework to learn how to activate it.

Topics

- PyTorch
- TensorFlow 2

PyTorch

Activating PyTorch

When a stable Conda package of a framework is released, it's tested and pre-installed on the DLAMI. If you want to run the latest, untested nightly build, you can Install PyTorch's Nightly Build (experimental) manually.

To activate the currently installed framework, follow these instructions on your Deep Learning AMI with Conda.

For PyTorch on Python 3 with CUDA and MKL-DNN, run this command:

```
$ source activate pytorch_p310
```

Start the iPython terminal.

```
(pytorch_p310)$ ipython
```

Run a quick PyTorch program.

```
import torch
x = torch.rand(5, 3)
print(x)
print(x.size())
y = torch.rand(5, 3)
print(torch.add(x, y))
```

You should see the initial random array printed, then its size, and then the addition of another random array.

Install PyTorch's Nightly Build (experimental)

How to install PyTorch from a nightly build

You can install the latest PyTorch build into either or both of the PyTorch Conda environments on your Deep Learning AMI with Conda.

1. • (Option for Python 3) - Activate the Python 3 PyTorch environment:

   ```
   $ source activate pytorch_p310
   ```

2. The remaining steps assume you are using the `pytorch_p310` environment. Remove the currently installed PyTorch:

```
(pytorch_p310)$ pip uninstall torch
```

3.
   - (Option for GPU instances) - Install the latest nightly build of PyTorch with CUDA.0:

```
(pytorch_p310)$ pip install torch_nightly -f https://download.pytorch.org/whl/
nightly/cu100/torch_nightly.html
```

   - (Option for CPU instances) - Install the latest nightly build of PyTorch for instances with no GPUs:

```
(pytorch_p310)$ pip install torch_nightly -f https://download.pytorch.org/whl/
nightly/cpu/torch_nightly.html
```

4. To verify you have successfully installed latest nightly build, start the IPython terminal and check the version of PyTorch.

```
(pytorch_p310)$ ipython
```

```
import torch
print (torch.__version__)
```

   The output should print something similar to `1.0.0.dev20180922`

5. To verify that the PyTorch nightly build works well with the MNIST example, you can run a test script from PyTorch's examples repository:

```
(pytorch_p310)$ cd ~
(pytorch_p310)$ git clone https://github.com/pytorch/examples.git pytorch_examples
(pytorch_p310)$ cd pytorch_examples/mnist
(pytorch_p310)$ python main.py || exit 1
```

More Tutorials

For further tutorials and examples refer to the framework's official docs, PyTorch documentation, and the PyTorch website.

TensorFlow 2

This tutorial shows how to activate TensorFlow 2 on an instance running the Deep Learning AMI with Conda (DLAMI on Conda) and run a TensorFlow 2 program.

When a stable Conda package of a framework is released, it's tested and pre-installed on the DLAMI.

Activating TensorFlow 2

To run TensorFlow on the DLAMI with Conda

1. To activate TensorFlow 2, open an Amazon Elastic Compute Cloud (Amazon EC2) instance of the DLAMI with Conda.
2. For TensorFlow 2 and Keras 2 on Python 3 with CUDA 10.1 and MKL-DNN, run this command:

   ```
   $ source activate tensorflow2_p310
   ```
3. Start the iPython terminal:

   ```
   (tensorflow2_p310)$ ipython
   ```
4. Run a TensorFlow 2 program to verify that it is working properly:

   ```
   import tensorflow as tf
   hello = tf.constant('Hello, TensorFlow!')
   tf.print(hello)
   ```

   `Hello, TensorFlow!` should appear on your screen.

More Tutorials

For more tutorials and examples, see the TensorFlow documentation for the TensorFlow Python API or see the TensorFlow website.

Distributed training using Elastic Fabric Adapter

An Elastic Fabric Adapter (EFA) is a network device that you can attach to your DLAMI instance to accelerate High Performance Computing (HPC) applications. EFA enables you to achieve

the application performance of an on-premises HPC cluster, with the scalability, flexibility, and elasticity provided by the AWS Cloud.

The following topics show you how to get started using EFA with the DLAMI.

> **Note**
>
> Choose your DLAMI from this Base GPU DLAMI list

Topics

- Launching a AWS Deep Learning AMIs Instance With EFA
- Using EFA on the DLAMI

Launching a AWS Deep Learning AMIs Instance With EFA

The latest Base DLAMI is ready to use with EFA and comes with the required drivers, kernel modules, libfabric, openmpi and the NCCL OFI plugin for GPU instances.

You can find the supported CUDA versions of a Base DLAMI in the release notes.

Note:

- When running a NCCL Application using `mpirun` on EFA, you will have to specify the full path to the EFA supported installation as:

```
/opt/amazon/openmpi/bin/mpirun <command>
```

- To enable your application to use EFA, add `FI_PROVIDER="efa"` to the `mpirun` command as shown in Using EFA on the DLAMI.

Topics

- Prepare an EFA Enabled Security Group
- Launch Your Instance
- Verify EFA Attachment

Prepare an EFA Enabled Security Group

EFA requires a security group that allows all inbound and outbound traffic to and from the security group itself. For more information, see the EFA Documentation.

1. Open the Amazon EC2 console at https://console.aws.amazon.com/ec2/.
2. In the navigation pane, choose **Security Groups** and then choose **Create Security Group**.
3. In the **Create Security Group** window, do the following:
   - For **Security group name**, enter a descriptive name for the security group, such as `EFA-enabled security group`.
   - (Optional) For **Description**, enter a brief description of the security group.
   - For **VPC**, select the VPC into which you intend to launch your EFA-enabled instances.
   - Choose **Create**.
4. Select the security group that you created, and on the **Description** tab, copy the **Group ID**.
5. On the **Inbound** and **Outbound** tabs, do the following:
   - Choose **Edit**.
   - For **Type**, choose **All traffic**.
   - For **Source**, choose **Custom**.
   - Paste the security group ID that you copied into the field.
   - Choose **Save**.
6. Enable inbound traffic referring to Authorizing Inbound Traffic for Your Linux Instances. If you skip this step, you won't be able to communicate with your DLAMI instance.

Launch Your Instance

EFA on the AWS Deep Learning AMIs is currently supported with the following instance types and operating systems:

- P3dn: Amazon Linux 2, Ubuntu 20.04
- P4d, P4de: Amazon Linux 2, Amazon Linux 2023, Ubuntu 20.04, Ubuntu 22.04
- P5, P5e, P5en: Amazon Linux 2, Amazon Linux 2023, Ubuntu 20.04, Ubuntu 22.04

The following section shows how to launch an EFA enabled DLAMI instance. For more information on launching an EFA enabled instance, see Launch EFA-Enabled Instances into a Cluster Placement Group.

1. Open the Amazon EC2 console at https://console.aws.amazon.com/ec2/.
2. Choose **Launch Instance**.
3. On the **Choose an AMI** page, select a supported DLAMI found on the DLAMI Release Notes Page
4. On the **Choose an Instance Type** page, select one of the following supported instance types and then choose **Next: Configure Instance Details.** Refer to this link for the list of supported instances: Get started with EFA and MPI
5. On the **Configure Instance Details** page, do the following:
   - For **Number of instances**, enter the number of EFA-enabled instances that you want to launch.
   - For **Network** and **Subnet**, select the VPC and subnet into which to launch the instances.
   - [Optional] For **Placement group**, select **Add instance to placement group**. For best performance, launch the instances within a placement group.
   - [Optional] For **Placement group name**, select **Add to a new placement group**, enter a descriptive name for the placement group, and then for **Placement group strategy**, select **cluster**.
   - Make sure to enable the **"Elastic Fabric Adapter"** on this page. If this option is disabled, change the subnet to one that supports your selected instance type.
   - In the **Network Interfaces** section, for device **eth0**, choose **New network interface**. You can optionally specify a primary IPv4 address and one or more secondary IPv4 addresses. If you're launching the instance into a subnet that has an associated IPv6 CIDR block, you can optionally specify a primary IPv6 address and one or more secondary IPv6 addresses.
   - Choose **Next: Add Storage**.
6. On the **Add Storage** page, specify the volumes to attach to the instances in addition to the volumes specified by the AMI (such as the root device volume), and then choose **Next: Add Tags**.
7. On the **Add Tags** page, specify tags for the instances, such as a user-friendly name, and then choose **Next: Configure Security Group**.
8. On the **Configure Security Group** page, for **Assign a security group**, select **Select an existing security group**, and then select the security group that you created previously**.**

9. Choose **Review and Launch**.
10. On the **Review Instance Launch** page, review the settings, and then choose **Launch** to choose a key pair and to launch your instances.

Verify EFA Attachment

From the Console

After launching the instance, check the instance details in the AWS Console. To do this, select the instance in the EC2 console and look at the Description Tab in the lower pane on the page. Find the parameter 'Network Interfaces: eth0' and click on eth0 which opens a pop-up. Make sure that 'Elastic Fabric Adapter' is enabled.

If EFA is not enabled, you can fix this by either:

- Terminating the EC2 instance and launching a new one with the same steps. Make sure the EFA is attached.
- Attach EFA to an existing instance.

  1. In the EC2 Console, go to Network Interfaces.
  2. Click on Create a Network Interface.
  3. Select the same subnet that your instance is in.
  4. Make sure to enable the 'Elastic Fabric Adapter' and click on Create.
  5. Go back to the EC2 Instances Tab and select your instance.
  6. Go to Actions: Instance State and stop the instance before you attach EFA.
  7. From Actions, select Networking: Attach Network Interface.
  8. Select the interface you just created and click on attach.
  9. Restart your instance.

From the Instance

The following test script is already present on the DLAMI. Run it to ensure that the kernel modules are loaded correctly.

```
$ fi_info -p efa
```

Your output should look similar to the following.

```
provider: efa
    fabric: EFA-fe80::e5:56ff:fe34:56a8
    domain: efa_0-rdm
    version: 2.0
    type: FI_EP_RDM
    protocol: FI_PROTO_EFA
provider: efa
    fabric: EFA-fe80::e5:56ff:fe34:56a8
    domain: efa_0-dgrm
    version: 2.0
    type: FI_EP_DGRAM
    protocol: FI_PROTO_EFA
provider: efa;ofi_rxd
    fabric: EFA-fe80::e5:56ff:fe34:56a8
    domain: efa_0-dgrm
    version: 1.0
    type: FI_EP_RDM
    protocol: FI_PROTO_RXD
```

Verify Security Group Configuration

The following test script is already present on the DLAMI. Run it to ensure that the security group you created is configured correctly.

```
$ cd /opt/amazon/efa/test/
$ ./efa_test.sh
```

Your output should look similar to the following.

```
Starting server...
Starting client...
bytes   #sent   #ack     total       time     MB/sec    usec/xfer   Mxfers/sec
64      10      =10      1.2k        0.02s      0.06    1123.55       0.00
256     10      =10      5k          0.00s     17.66      14.50       0.07
1k      10      =10      20k         0.00s     67.81      15.10       0.07
4k      10      =10      80k         0.00s    237.45      17.25       0.06
64k     10      =10      1.2m        0.00s    921.10      71.15       0.01
1m      10      =10      20m         0.01s   2122.41     494.05       0.00
```

If it stops responding or does not complete, ensure that your security group has the correct inbound/outbound rules.

Using EFA on the DLAMI

The following section describes how to use EFA to run multi-node applications on the AWS Deep Learning AMIs.

Running Multi-Node Applications with EFA

To run an application across a cluster of nodes the following configuration is required

Topics

- Enable Passwordless SSH
- Create Hosts File
- NCCL Tests

Enable Passwordless SSH

Select one node in your cluster as the leader node. The remaining nodes are referred to as the member nodes.

1. On the leader node, generate the RSA keypair.

   ```
   ssh-keygen -t rsa -N "" -f ~/.ssh/id_rsa
   ```

2. Change the permissions of the private key on the leader node.

   ```
   chmod 600 ~/.ssh/id_rsa
   ```

3. Copy the public key `~/.ssh/id_rsa.pub` to and append it to `~/.ssh/authorized_keys` of the member nodes in the cluster.
4. You should now be able to directly login to the member nodes from the leader node using the private ip.

   ```
   ssh <member private ip>
   ```

5. Disable strictHostKeyChecking and enable agent forwarding on the leader node by adding the following to the ~/.ssh/config file on the leader node:

   ```
   Host *
       ForwardAgent yes
   ```

```
Host *
    StrictHostKeyChecking no
```

6. On Amazon Linux 2 instances, run the following command on the leader node to provide correct permissions to the config file:

```
chmod 600 ~/.ssh/config
```

Create Hosts File

On the leader node, create a hosts file to identify the nodes in the cluster. The hosts file must have an entry for each node in the cluster. Create a file ~/hosts and add each node using the private ip as follows:

```
localhost slots=8
<private ip of node 1> slots=8
<private ip of node 2> slots=8
```

NCCL Tests

> **Note**
>
> These tests have been run using EFA version 1.38.0 and OFI NCCL Plugin 1.13.2.

Listed below are a subset of NCCL Tests provided by Nvidia to test both functionality and performance over multiple compute nodes

Supported Instances: P3dn, P4, P5, P5e, P5en

Performance Tests

Multi-node NCCL Performance Test on P4d.24xlarge

To check NCCL Performance with EFA, run the standard NCCL Performance test that is available on the official NCCL-Tests Repo. The DLAMI comes with this test already built for CUDA XX.X. You can similarly run your own script with EFA.

When constructing your own script, refer to the following guidance:

- Use the complete path to mpirun as shown in the example while running NCCL applications with EFA.
- Change the params np and N based on the number of instances and GPUs in your cluster.
- Add the NCCL_DEBUG=INFO flag and make sure that the logs indicate EFA usage as "Selected Provider is EFA".
- Set the Training Log Location to parse for validation

```
TRAINING_LOG="testEFA_$(date +"%N").log"
```

Use the command `watch nvidia-smi` on any of the member nodes to monitor GPU usage. The following `watch nvidia-smi` commands are for a generic CUDA xx.x version and depend on the Operating System of your instance. You can run the commands for any available CUDA version in your Amazon EC2 instance by replacing the CUDA version in the script.

- Amazon Linux 2, Amazon Linux 2023:

```
 $ /opt/amazon/openmpi/bin/mpirun -n 16 -N 8 \
-x NCCL_DEBUG=INFO --mca pml ^cm \
-x LD_LIBRARY_PATH=/usr/local/cuda-xx.x/efa/lib:/usr/local/cuda-xx.x/lib:/usr/
local/cuda-xx.x/lib64:/usr/local/cuda-xx.x:/opt/amazon/efa/lib64:/opt/amazon/openmpi/
lib64:$LD_LIBRARY_PATH \
--hostfile hosts --mca btl tcp,self --mca btl_tcp_if_exclude lo,docker0 --bind-to
 none \
/usr/local/cuda-xx.x/efa/test-cuda-xx.x/all_reduce_perf -b 8 -e 1G -f 2 -g 1 -c 1 -n
 100 | tee ${TRAINING_LOG}
```

- Ubuntu 20.04, Ubuntu 20.04:

```
$ /opt/amazon/openmpi/bin/mpirun -n 16 -N 8 \
-x NCCL_DEBUG=INFO --mca pml ^cm \
-x LD_LIBRARY_PATH=/usr/local/cuda-xx.x/efa/lib:/usr/local/cuda-xx.x/lib:/usr/
local/cuda-xx.x/lib64:/usr/local/cuda-xx.x:/opt/amazon/efa/lib:/opt/amazon/openmpi/
lib:$LD_LIBRARY_PATH \
--hostfile hosts --mca btl tcp,self --mca btl_tcp_if_exclude lo,docker0 --bind-to
 none \
/usr/local/cuda-xx.x/efa/test-cuda-xx.x/all_reduce_perf -b 8 -e 1G -f 2 -g 1 -c 1 -n
 100 | tee ${TRAINING_LOG}
```

Your output should look like the following:

```
# nThread 1 nGpus 1 minBytes 8 maxBytes 1073741824 step: 2(factor) warmup iters: 5
 iters: 100 agg iters: 1 validation: 1 graph: 0
#
# Using devices
#  Rank  0 Group  0 Pid  33378 on ip-172-31-42-25 device  0 [0x10] NVIDIA A100-
SXM4-40GB
#  Rank  1 Group  0 Pid  33379 on ip-172-31-42-25 device  1 [0x10] NVIDIA A100-
SXM4-40GB
#  Rank  2 Group  0 Pid  33380 on ip-172-31-42-25 device  2 [0x20] NVIDIA A100-
SXM4-40GB
#  Rank  3 Group  0 Pid  33381 on ip-172-31-42-25 device  3 [0x20] NVIDIA A100-
SXM4-40GB
#  Rank  4 Group  0 Pid  33382 on ip-172-31-42-25 device  4 [0x90] NVIDIA A100-
SXM4-40GB
#  Rank  5 Group  0 Pid  33383 on ip-172-31-42-25 device  5 [0x90] NVIDIA A100-
SXM4-40GB
#  Rank  6 Group  0 Pid  33384 on ip-172-31-42-25 device  6 [0xa0] NVIDIA A100-
SXM4-40GB
#  Rank  7 Group  0 Pid  33385 on ip-172-31-42-25 device  7 [0xa0] NVIDIA A100-
SXM4-40GB
#  Rank  8 Group  0 Pid  30378 on ip-172-31-43-8 device  0 [0x10] NVIDIA A100-SXM4-40GB
#  Rank  9 Group  0 Pid  30379 on ip-172-31-43-8 device  1 [0x10] NVIDIA A100-SXM4-40GB
#  Rank 10 Group  0 Pid  30380 on ip-172-31-43-8 device  2 [0x20] NVIDIA A100-SXM4-40GB
#  Rank 11 Group  0 Pid  30381 on ip-172-31-43-8 device  3 [0x20] NVIDIA A100-SXM4-40GB
#  Rank 12 Group  0 Pid  30382 on ip-172-31-43-8 device  4 [0x90] NVIDIA A100-SXM4-40GB
#  Rank 13 Group  0 Pid  30383 on ip-172-31-43-8 device  5 [0x90] NVIDIA A100-SXM4-40GB
#  Rank 14 Group  0 Pid  30384 on ip-172-31-43-8 device  6 [0xa0] NVIDIA A100-SXM4-40GB
#  Rank 15 Group  0 Pid  30385 on ip-172-31-43-8 device  7 [0xa0] NVIDIA A100-SXM4-40GB
ip-172-31-42-25:33385:33385 [7] NCCL INFO cudaDriverVersion 12060
ip-172-31-43-8:30383:30383 [5] NCCL INFO Bootstrap : Using ens32:172.31.43.8
ip-172-31-43-8:30383:30383 [5] NCCL INFO NCCL version 2.23.4+cuda12.5
...
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Initializing aws-ofi-nccl 1.13.2-aws
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Using Libfabric version 1.22
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Using CUDA driver version 12060 with
 runtime 12050
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Configuring AWS-specific options
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Setting provider_filter to efa
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Setting FI_EFA_FORK_SAFE environment
 variable to 1
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Setting NCCL_NVLSTREE_MAX_CHUNKSIZE
 to 512KiB
```

```
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Setting NCCL_NVLS_CHUNKSIZE to 512KiB
ip-172-31-42-25:33384:33451 [6] NCCL INFO NET/OFI Running on p4d.24xlarge platform,
 Setting NCCL_TOPO_FILE environment variable to /opt/amazon/ofi-nccl/share/aws-ofi-
nccl/xml/p4d-24xl-topo.xml
...
------------------------------some output truncated-----------------------------------
#                                                              out-of-place
          in-place
#       size         count      type   redop    root     time   algbw   busbw #wrong
  time   algbw   busbw #wrong
#        (B)    (elements)                               (us)  (GB/s)  (GB/s)
  (us)  (GB/s)  (GB/s)
           8             2     float     sum      -1    180.3    0.00    0.00      0
 179.3    0.00    0.00      0
          16             4     float     sum      -1    178.1    0.00    0.00      0
 177.6    0.00    0.00      0
          32             8     float     sum      -1    178.5    0.00    0.00      0
 177.9    0.00    0.00      0
          64            16     float     sum      -1    178.8    0.00    0.00      0
 178.7    0.00    0.00      0
         128            32     float     sum      -1    178.2    0.00    0.00      0
 177.8    0.00    0.00      0
         256            64     float     sum      -1    178.6    0.00    0.00      0
 178.8    0.00    0.00      0
         512           128     float     sum      -1    177.2    0.00    0.01      0
 177.1    0.00    0.01      0
        1024           256     float     sum      -1    179.2    0.01    0.01      0
 179.3    0.01    0.01      0
        2048           512     float     sum      -1    181.3    0.01    0.02      0
 181.2    0.01    0.02      0
        4096          1024     float     sum      -1    184.2    0.02    0.04      0
 183.9    0.02    0.04      0
        8192          2048     float     sum      -1    191.2    0.04    0.08      0
 190.6    0.04    0.08      0
       16384          4096     float     sum      -1    202.5    0.08    0.15      0
 202.3    0.08    0.15      0
       32768          8192     float     sum      -1    233.0    0.14    0.26      0
 232.1    0.14    0.26      0
       65536         16384     float     sum      -1    238.6    0.27    0.51      0
 235.1    0.28    0.52      0
      131072         32768     float     sum      -1    237.2    0.55    1.04      0
 236.8    0.55    1.04      0
      262144         65536     float     sum      -1    248.3    1.06    1.98      0
 247.0    1.06    1.99      0
```

```
      524288        131072     float     sum      -1    309.2    1.70    3.18      0
 307.7    1.70    3.20      0
     1048576        262144     float     sum      -1    408.7    2.57    4.81      0
 404.3    2.59    4.86      0
     2097152        524288     float     sum      -1    613.5    3.42    6.41      0
 607.9    3.45    6.47      0
     4194304       1048576     float     sum      -1    924.5    4.54    8.51      0
 914.8    4.58    8.60      0
     8388608       2097152     float     sum      -1   1059.5    7.92   14.85      0
 1054.3    7.96   14.92      0
    16777216       4194304     float     sum      -1   1269.9   13.21   24.77      0
 1272.0   13.19   24.73      0
    33554432       8388608     float     sum      -1   1642.7   20.43   38.30      0
 1636.7   20.50   38.44      0
    67108864      16777216     float     sum      -1   2446.7   27.43   51.43      0
 2445.8   27.44   51.45      0
   134217728      33554432     float     sum      -1   4143.6   32.39   60.73      0
 4142.4   32.40   60.75      0
   268435456      67108864     float     sum      -1   7351.9   36.51   68.46      0
 7346.7   36.54   68.51      0
   536870912     134217728     float     sum      -1    13717   39.14   73.39      0
 13703   39.18   73.46      0
  1073741824     268435456     float     sum      -1    26416   40.65   76.21      0
 26420   40.64   76.20      0
...
# Out of bounds values : 0 OK
# Avg bus bandwidth    : 15.5514
```

Validation Tests

To Validate that the EFA tests returned a valid result, please use the following tests to confirm:

- Get the instance type using EC2 Instance Metadata:

```
TOKEN=$(curl -X PUT "http://169.254.169.254/latest/api/token" -H "X-aws-ec2-metadata-
token-ttl-seconds: 21600")
INSTANCE_TYPE=$(curl -H "X-aws-ec2-metadata-token: $TOKEN" -v http://169.254.169.254/
latest/meta-data/instance-type)
```

- Run the Performance Tests
- Set the Following Parameters

```
CUDA_VERSION
```

```
CUDA_RUNTIME_VERSION
NCCL_VERSION
```

- Validate the Results as shown:

```
RETURN_VAL=`echo $?`
if [ ${RETURN_VAL} -eq 0 ]; then

    # [0] NCCL INFO NET/OFI Initializing aws-ofi-nccl 1.13.2-aws
    # [0] NCCL INFO NET/OFI Using CUDA driver version 12060 with runtime 12010

    # cudaDriverVersion 12060  --> This is max supported cuda version by nvidia
 driver
    # NCCL version 2.23.4+cuda12.5 --> This is NCCL version compiled with cuda
 version

    # Validation of logs
    grep "NET/OFI Configuring AWS-specific options" ${TRAINING_LOG} || { echo "AWS-
specific options text not found"; exit 1; }
    grep "busbw" ${TRAINING_LOG} || { echo "busbw text not found"; exit 1; }
    grep "Avg bus bandwidth " ${TRAINING_LOG} || { echo "Avg bus bandwidth text not
 found"; exit 1; }
    grep "NCCL version $NCCL_VERSION" ${TRAINING_LOG} || { echo "Text not found: NCCL
 version $NCCL_VERSION"; exit 1; }
    if [[ ${INSTANCE_TYPE} == "p4d.24xlarge" ]]; then
        grep "NET/Libfabric/0/GDRDMA" ${TRAINING_LOG} || { echo "Text not found: NET/
Libfabric/0/GDRDMA"; exit 1; }
        grep "NET/OFI Selected Provider is efa (found 4 nics)" ${TRAINING_LOG} ||
 { echo "Selected Provider is efa text not found"; exit 1; }
    elif [[ ${INSTANCE_TYPE} == "p4de.24xlarge" ]]; then
        grep "NET/Libfabric/0/GDRDMA" ${TRAINING_LOG} || { echo "Avg bus bandwidth
 text not found"; exit 1; }
        grep "NET/OFI Selected Provider is efa (found 4 nics)" ${TRAINING_LOG} ||
 { echo "Avg bus bandwidth text not found"; exit 1; }
    elif [[ ${INSTANCE_TYPE} == "p5.48xlarge" ]]; then
        grep "NET/Libfabric/0/GDRDMA" ${TRAINING_LOG} || { echo "Avg bus bandwidth
 text not found"; exit 1; }
        grep "NET/OFI Selected Provider is efa (found 32 nics)" ${TRAINING_LOG} ||
 { echo "Avg bus bandwidth text not found"; exit 1; }
    elif [[ ${INSTANCE_TYPE} == "p5e.48xlarge" ]]; then
        grep "NET/Libfabric/0/GDRDMA" ${TRAINING_LOG} || { echo "Avg bus bandwidth
 text not found"; exit 1; }
        grep "NET/OFI Selected Provider is efa (found 32 nics)" ${TRAINING_LOG} ||
 { echo "Avg bus bandwidth text not found"; exit 1; }
```

```
    elif [[ ${INSTANCE_TYPE} == "p5en.48xlarge" ]]; then
        grep "NET/Libfabric/0/GDRDMA" ${TRAINING_LOG} || { echo "Avg bus bandwidth
 text not found"; exit 1; }
        grep "NET/OFI Selected Provider is efa (found 16 nics)" ${TRAINING_LOG} ||
 { echo "Avg bus bandwidth text not found"; exit 1; }
    elif [[ ${INSTANCE_TYPE} == "p3dn.24xlarge" ]]; then
        grep "NET/OFI Selected Provider is efa (found 4 nics)" ${TRAINING_LOG} ||
 { echo "Selected Provider is efa text not found"; exit 1; }
    fi
    echo "*************************** check_efa_nccl_all_reduce passed for cuda
 version ${CUDA_VERSION} ***************************"
else
    echo "*************************** check_efa_nccl_all_reduce failed for cuda
 version ${CUDA_VERSION} ***************************"
fi
```

- To access the benchmark data, we can parse the final row of table output from the Multi Node all_reduce test:

```
benchmark=$(sudo cat ${TRAINING_LOG} | grep '1073741824' | tail -n1 | awk -F " "
 '{{print $12}}' | sed 's/ //' | sed  's/  5e-07//')
if [[ -z "${benchmark}" ]]; then
  echo "benchmark variable is empty"
  exit 1
fi

echo "Benchmark throughput: ${benchmark}"
```

GPU Monitoring and Optimization

The following section will guide you through GPU optimization and monitoring options. This section is organized like a typical workflow with monitoring overseeing preprocessing and training.

- Monitoring
  - Monitor GPUs with CloudWatch
- Optimization
  - Preprocessing
  - Training

Monitoring

Your DLAMI comes preinstalled with several GPU monitoring tools. This guide also mentions tools that are available to download and install.

- Monitor GPUs with CloudWatch - a preinstalled utility that reports GPU usage statistics to Amazon CloudWatch.
- nvidia-smi CLI - a utility to monitor overall GPU compute and memory utilization. This is preinstalled on your AWS Deep Learning AMIs (DLAMI).
- NVML C library - a C-based API to directly access GPU monitoring and management functions. This used by the nvidia-smi CLI under the hood and is preinstalled on your DLAMI. It also has Python and Perl bindings to facilitate development in those languages. The gpumon.py utility preinstalled on your DLAMI uses the pynvml package from nvidia-ml-py.
- NVIDIA DCGM - A cluster management tool. Visit the developer page to learn how to install and configure this tool.

> **Tip**
>
> Check out NVIDIA's developer blog for the latest info on using the CUDA tools installed your DLAMI:
>
> - Monitoring TensorCore utilization using Nsight IDE and nvprof.

Monitor GPUs with CloudWatch

When you use your DLAMI with a GPU you might find that you are looking for ways to track its usage during training or inference. This can be useful for optimizing your data pipeline, and tuning your deep learning network.

There are two ways to configure GPU metrics with CloudWatch:

- Configure metrics with the AWS CloudWatch agent (Recommended)
- Configure metrics with the preinstalled `gpumon.py` script

Configure metrics with the AWS CloudWatch agent (Recommended)

Integrate your DLAMI with the unified CloudWatch agent to configure GPU metrics and monitor the utilization of GPU coprocesses in Amazon EC2 accelerated instances.

There are four ways to configure GPU metrics with your DLAMI:

- Configure minimal GPU metrics
- Configure partial GPU metrics
- Configure all available GPU metrics
- Configure custom GPU metrics

For information on updates and security patches, see Security patching for the AWS CloudWatch agent

Prerequisites

To get started, you must configure Amazon EC2 instance IAM permissions that allow your instance to push metrics to CloudWatch. For detailed steps, see Create IAM roles and users for use with the CloudWatch agent.

Configure minimal GPU metrics

Configure minimal GPU metrics using the `dlami-cloudwatch-agent@minimal` `systemd` service. This service configures the following metrics:

- `utilization_gpu`
- `utilization_memory`

You can find the `systemd` service for minimal preconfigured GPU metrics in the following location:

```
/opt/aws/amazon-cloudwatch-agent/etc/dlami-amazon-cloudwatch-agent-minimal.json
```

Enable and start the `systemd` service with the following commands:

```
sudo systemctl enable dlami-cloudwatch-agent@minimal
sudo systemctl start dlami-cloudwatch-agent@minimal
```

Configure partial GPU metrics

Configure partial GPU metrics using the `dlami-cloudwatch-agent@partial` `systemd` service. This service configures the following metrics:

- `utilization_gpu`
- `utilization_memory`
- `memory_total`
- `memory_used`
- `memory_free`

You can find the `systemd` service for partial preconfigured GPU metrics in the following location:

```
/opt/aws/amazon-cloudwatch-agent/etc/dlami-amazon-cloudwatch-agent-partial.json
```

Enable and start the `systemd` service with the following commands:

```
sudo systemctl enable dlami-cloudwatch-agent@partial
sudo systemctl start dlami-cloudwatch-agent@partial
```

Configure all available GPU metrics

Configure all available GPU metrics using the `dlami-cloudwatch-agent@all` `systemd` service. This service configures the following metrics:

- `utilization_gpu`
- `utilization_memory`
- `memory_total`
- `memory_used`
- `memory_free`
- `temperature_gpu`
- `power_draw`
- `fan_speed`
- `pcie_link_gen_current`

- pcie_link_width_current
- encoder_stats_session_count
- encoder_stats_average_fps
- encoder_stats_average_latency
- clocks_current_graphics
- clocks_current_sm
- clocks_current_memory
- clocks_current_video

You can find the systemd service for all available preconfigured GPU metrics in the following location:

```
/opt/aws/amazon-cloudwatch-agent/etc/dlami-amazon-cloudwatch-agent-all.json
```

Enable and start the systemd service with the following commands:

```
sudo systemctl enable dlami-cloudwatch-agent@all
sudo systemctl start dlami-cloudwatch-agent@all
```

Configure custom GPU metrics

If the preconfigured metrics do not meet your requirements, you can create a custom CloudWatch agent configuration file.

Create a custom configuration file

To create a custom configuration file, refer to the detailed steps in Manually create or edit the CloudWatch agent configuration file.

For this example, assume that the schema definition is located at /opt/aws/amazon-cloudwatch-agent/etc/amazon-cloudwatch-agent.json.

Configure metrics with your custom file

Run the following command to configure the CloudWatch agent according to your custom file:

```
sudo /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-ctl \
```

```
-a fetch-config -m ec2 -s -c \
file:/opt/aws/amazon-cloudwatch-agent/etc/amazon-cloudwatch-agent.json
```

Security patching for the AWS CloudWatch agent

Newly released DLAMIs are configured with the latest available AWS CloudWatch agent security patches. Refer to the following sections to update your current DLAMI with the latest security patches depending on your operating system of choice.

Amazon Linux 2

Use `yum` to get the latest AWS CloudWatch agent security patches for an Amazon Linux 2 DLAMI.

```
sudo yum update
```

Ubuntu

To get the latest AWS CloudWatch security patches for a DLAMI with Ubuntu, it is necessary to reinstall the AWS CloudWatch agent using an Amazon S3 download link.

```
wget https://s3.region.amazonaws.com/amazoncloudwatch-agent-region/ubuntu/arm64/latest/
amazon-cloudwatch-agent.deb
```

For more information on installing the AWS CloudWatch agent using Amazon S3 download links, see Installing and running the CloudWatch agent on your servers.

Configure metrics with the preinstalled `gpumon.py` script

A utility called gpumon.py is preinstalled on your DLAMI. It integrates with CloudWatch and supports monitoring of per-GPU usage: GPU memory, GPU temperature, and GPU Power. The script periodically sends the monitored data to CloudWatch. You can configure the level of granularity for data being sent to CloudWatch by changing a few settings in the script. Before starting the script, however, you will need to setup CloudWatch to receive the metrics.

How to setup and run GPU monitoring with CloudWatch

1. Create an IAM user, or modify an existing one to have a policy for publishing the metric to CloudWatch. If you create a new user please take note of the credentials as you will need these in the next step.

The IAM policy to search for is “cloudwatch:PutMetricData”. The policy that is added is as follows:

JSON

```
{
   "Version":"2012-10-17",
   "Statement": [
        {
            "Action": [
                "cloudwatch:PutMetricData"
             ],
             "Effect": "Allow",
             "Resource": "*"
        }
   ]
}
```

Tip

For more information on creating an IAM user and adding policies for CloudWatch, refer to the CloudWatch documentation.

2. On your DLAMI, run AWS configure and specify the IAM user credentials.

```
$ aws configure
```

3. You might need to make some modifications to the gpumon utility before you run it. You can find the gpumon utility and README in the location defined in the following code block. For more information on the `gpumon.py` script, see the Amazon S3 location of the script.

```
Folder: ~/tools/GPUCloudWatchMonitor
Files:  ~/tools/GPUCloudWatchMonitor/gpumon.py
       ~/tools/GPUCloudWatchMonitor/README
```

Options:

- Change the region in gpumon.py if your instance is NOT in us-east-1.

- Change other parameters such as the CloudWatch `namespace` or the reporting period with `store_reso`.

4. Currently the script only supports Python 3. Activate your preferred framework's Python 3 environment or activate the DLAMI general Python 3 environment.

```
$ source activate python3
```

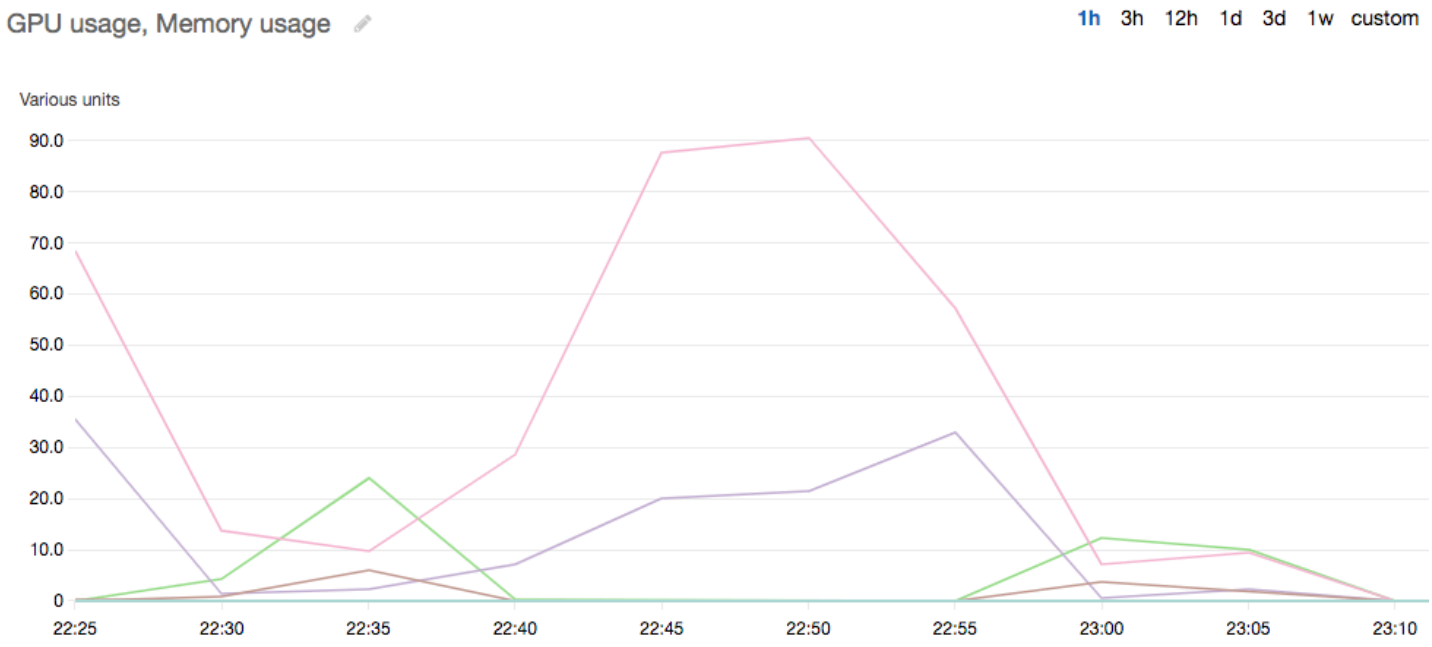
5. Run the gpumon utility in background.

```
(python3)$ python gpumon.py &
```

6. Open your browser to the https://console.aws.amazon.com/cloudwatch/ then select metric. It will have a namespace 'DeepLearningTrain'.

> **Tip**
>
> You can change the namespace by modifying gpumon.py. You can also modify the reporting interval by adjusting `store_reso`.

The following is an example CloudWatch chart reporting on a run of gpumon.py monitoring a training job on p2.8xlarge instance.



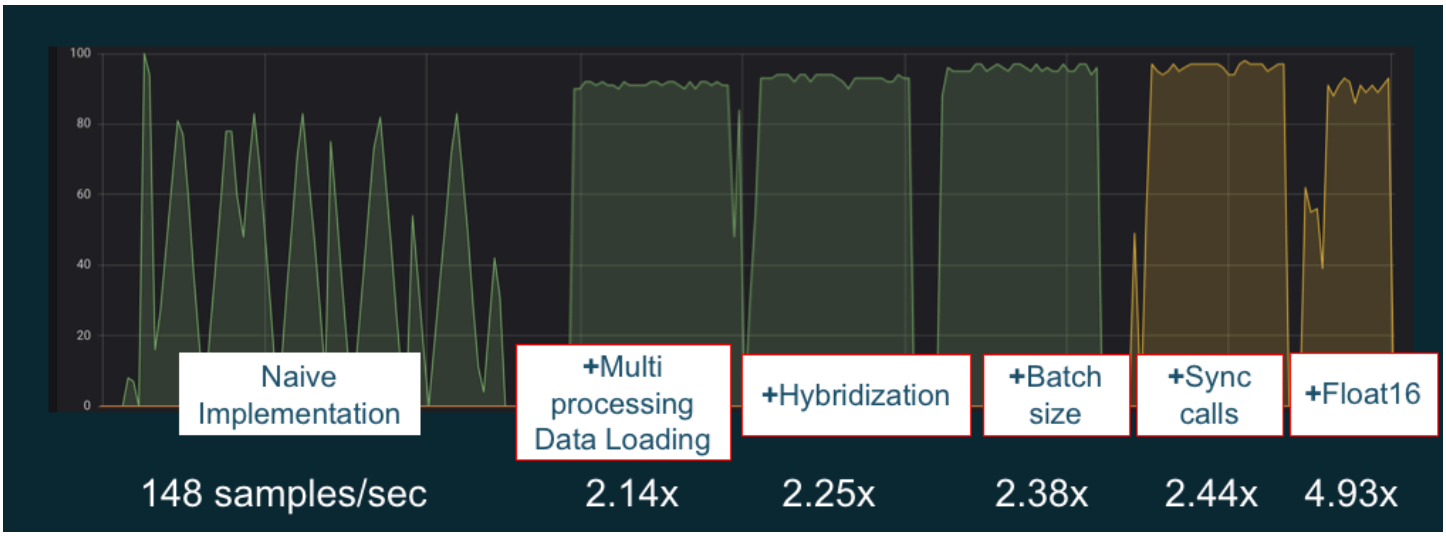
You might be interested in these other topics on GPU monitoring and optimization:

- Monitoring
  - Monitor GPUs with CloudWatch
- Optimization
  - Preprocessing
  - Training

Optimization

To make the most of your GPUs, you can optimize your data pipeline and tune your deep learning network. As the following chart describes, a naive or basic implementation of a neural network might use the GPU inconsistently and not to its fullest potential. When you optimize your preprocessing and data loading, you can reduce the bottleneck from your CPU to your GPU. You can adjust the neural network itself, by using hybridization (when supported by the framework), adjusting batch size, and synchronizing calls. You can also use multiple-precision (float16 or int8) training in most frameworks, which can have a dramatic effect on improving throughput.

The following chart shows the cumulative performance gains when applying different optimizations. Your results will depend on the data you are processing and the network you are optimizing.



Example GPU performance optimizations. Chart source: Performance Tricks with MXNet Gluon

The following guides introduce options that will work with your DLAMI and help you boost GPU performance.

Topics

- Preprocessing
- Training

Preprocessing

Data preprocessing through transformations or augmentations can often be a CPU-bound process, and this can be the bottleneck in your overall pipeline. Frameworks have built-in operators for image processing, but DALI (Data Augmentation Library) demonstrates improved performance over frameworks' built-in options.

- NVIDIA Data Augmentation Library (DALI): DALI offloads data augmentation to the GPU. It is not preinstalled on the DLAMI, but you can access it by installing it or loading a supported framework container on your DLAMI or other Amazon Elastic Compute Cloud instance. Refer to the DALI project page on the NVIDIA website for details. For an example use-case and to download code samples, see the SageMaker Preprocessing Training Performance sample.
- nvJPEG: a GPU-accelerated JPEG decoder library for C programmers. It supports decoding single images or batches as well as subsequent transformation operations that are common in deep learning. nvJPEG comes built-in with DALI, or you can download from the NVIDIA website's nvjpeg page and use it separately.

You might be interested in these other topics on GPU monitoring and optimization:

- Monitoring
  - Monitor GPUs with CloudWatch
- Optimization
  - Preprocessing
  - Training

Training

With mixed-precision training you can deploy larger networks with the same amount of memory, or reduce memory usage compared to your single or double precision network, and you will see compute performance increases. You also get the benefit of smaller and faster data transfers, an important factor in multiple node distributed training. To take advantage of mixed-precision training you need to adjust data casting and loss scaling. The following are guides describing how to do this for the frameworks that support mixed-precision.

- NVIDIA Deep Learning SDK - docs on the NVIDIA website describing mixed-precision implementation for MXNet, PyTorch, and TensorFlow.

> **Tip**
>
> Be sure to check the website for your framework of choice, and search for "mixed precision" or "fp16" for the latest optimization techniques. Here are some mixed-precision guides you might find helpful:
>
> - Mixed-precision training with TensorFlow (video) - on the NVIDIA blog site.
> - Mixed-precision training using float16 with MXNet - an FAQ article on the MXNet website.
> - NVIDIA Apex: a tool for easy mixed-precision training with PyTorch - a blog article on the NVIDIA website.

You might be interested in these other topics on GPU monitoring and optimization:

- Monitoring
  - Monitor GPUs with CloudWatch
- Optimization
  - Preprocessing
  - Training

The AWS Inferentia Chip With DLAMI

AWS Inferentia is a custom machine learning chip designed by AWS that you can use for high-performance inference predictions. In order to use the chip, set up an Amazon Elastic Compute Cloud instance and use the AWS Neuron software development kit (SDK) to invoke the Inferentia chip. To provide customers with the best Inferentia experience, Neuron has been built into the AWS Deep Learning AMIs (DLAMI).

The following topics show you how to get started using Inferentia with the DLAMI.

Contents

- Launching a DLAMI Instance with AWS Neuron

- Using the DLAMI with AWS Neuron

Launching a DLAMI Instance with AWS Neuron

The latest DLAMI is ready to use with AWS Inferentia and comes with the AWS Neuron API package. To launch a DLAMI instance, see Launching and Configuring a DLAMI. After you have a DLAMI, use the steps here to ensure that your AWS Inferentia chip and AWS Neuron resources are active.

Contents

- Verify Your Instance
- Identifying AWS Inferentia Devices
- View Resource Usage
- Using Neuron Monitor (neuron-monitor)
- Upgrading Neuron Software

Verify Your Instance

Before using your instance, verify that it's properly setup and configured with Neuron.

Identifying AWS Inferentia Devices

To identify the number of Inferentia devices on your instance, use the following command:

```
neuron-ls
```

If your instance has Inferentia devices attached to it, your output will look similar to the following:

```
+--------+--------+--------+-----------+--------------+
| NEURON | NEURON | NEURON | CONNECTED |     PCI      |
| DEVICE | CORES  | MEMORY |  DEVICES  |     BDF      |
+--------+--------+--------+-----------+--------------+
| 0      | 4      | 8 GB   | 1         | 0000:00:1c.0 |
| 1      | 4      | 8 GB   | 2, 0      | 0000:00:1d.0 |
| 2      | 4      | 8 GB   | 3, 1      | 0000:00:1e.0 |
| 3      | 4      | 8 GB   | 2         | 0000:00:1f.0 |
+--------+--------+--------+-----------+--------------+
```

The supplied output is taken from an Inf1.6xlarge instance and includes the following columns:

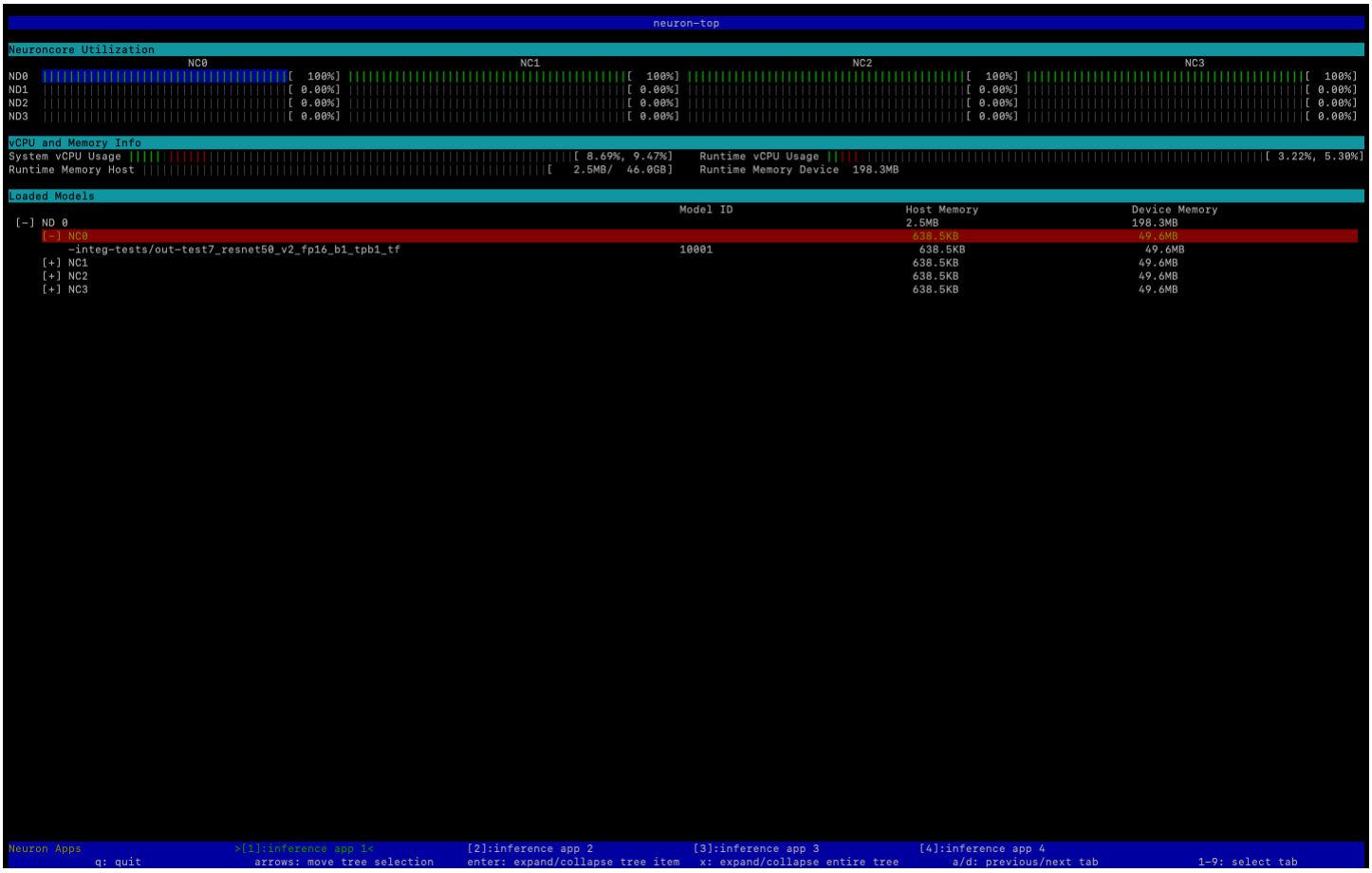
- NEURON DEVICE: The logical ID assigned to the NeuronDevice. This ID is used when configuring multiple runtimes to use different NeuronDevices.
- NEURON CORES: The number of NeuronCores present in the NeuronDevice.
- NEURON MEMORY: The amount of DRAM memory in the NeuronDevice.
- CONNECTED DEVICES: Other NeuronDevices connected to the NeuronDevice.
- PCI BDF: The PCI Bus Device Function (BDF) ID of the NeuronDevice.

View Resource Usage

View useful information about NeuronCore and vCPU utilization, memory usage, loaded models, and Neuron applications with the `neuron-top` command. Launching `neuron-top` with no arguments will show data for all machine learning applications that utilize NeuronCores.

```
neuron-top
```

When an application is using four NeuronCores, the output should look similar to the following image:



For more information on resources to monitor and optimize Neuron-based inference applications, see Neuron Tools.

Using Neuron Monitor (neuron-monitor)

Neuron Monitor collects metrics from the Neuron runtimes running on the system and streams the collected data to stdout in JSON format. These metrics are organized into metric groups that you configure by providing a configuration file. For more information on Neuron Monitor, see the User Guide for Neuron Monitor.

Upgrading Neuron Software

For information on how to update Neuron SDK software within DLAMI, see the AWS Neuron Setup Guide.

Next Step

Using the DLAMI with AWS Neuron

Using the DLAMI with AWS Neuron

A typical workflow with the AWS Neuron SDK is to compile a previously trained machine learning model on a compilation server. After this, distribute the artifacts to the Inf1 instances for execution. AWS Deep Learning AMIs (DLAMI) comes pre-installed with everything you need to compile and run inference in an Inf1 instance that uses Inferentia.

The following sections describe how to use the DLAMI with Inferentia.

Contents

- Using TensorFlow-Neuron and the AWS Neuron Compiler
- Using AWS Neuron TensorFlow Serving
- Using MXNet-Neuron and the AWS Neuron Compiler
- Using MXNet-Neuron Model Serving
- Using PyTorch-Neuron and the AWS Neuron Compiler

Using TensorFlow-Neuron and the AWS Neuron Compiler

This tutorial shows how to use the AWS Neuron compiler to compile the Keras ResNet-50 model and export it as a saved model in SavedModel format. This format is a typical TensorFlow model

interchangeable format. You also learn how to run inference on an Inf1 instance with example input.

For more information about the Neuron SDK, see the AWS Neuron SDK documentation.

Contents

- Prerequisites
- Activate the Conda environment
- Resnet50 Compilation
- ResNet50 Inference

Prerequisites

Before using this tutorial, you should have completed the set up steps in Launching a DLAMI Instance with AWS Neuron. You should also have a familiarity with deep learning and using the DLAMI.

Activate the Conda environment

Activate the TensorFlow-Neuron conda environment using the following command:

```
source activate aws_neuron_tensorflow_p36
```

To exit the current conda environment, run the following command:

```
source deactivate
```

Resnet50 Compilation

Create a Python script called **`tensorflow_compile_resnet50.py`** that has the following content. This Python script compiles the Keras ResNet50 model and exports it as a saved model.

```
import os
import time
import shutil
import tensorflow as tf
```

```
import tensorflow.neuron as tfn
import tensorflow.compat.v1.keras as keras
from tensorflow.keras.applications.resnet50 import ResNet50
from tensorflow.keras.applications.resnet50 import preprocess_input

# Create a workspace
WORKSPACE = './ws_resnet50'
os.makedirs(WORKSPACE, exist_ok=True)

# Prepare export directory (old one removed)
model_dir = os.path.join(WORKSPACE, 'resnet50')
compiled_model_dir = os.path.join(WORKSPACE, 'resnet50_neuron')
shutil.rmtree(model_dir, ignore_errors=True)
shutil.rmtree(compiled_model_dir, ignore_errors=True)

# Instantiate Keras ResNet50 model
keras.backend.set_learning_phase(0)
model = ResNet50(weights='imagenet')

# Export SavedModel
tf.saved_model.simple_save(
 session            = keras.backend.get_session(),
 export_dir         = model_dir,
 inputs             = {'input': model.inputs[0]},
 outputs            = {'output': model.outputs[0]})

# Compile using Neuron
tfn.saved_model.compile(model_dir, compiled_model_dir)

# Prepare SavedModel for uploading to Inf1 instance
shutil.make_archive(compiled_model_dir, 'zip', WORKSPACE, 'resnet50_neuron')
```

Compile the model using the following command:

```
python tensorflow_compile_resnet50.py
```

The compilation process will take a few minutes. When it completes, your output should look like the following:

```
...
INFO:tensorflow:fusing subgraph neuron_op_d6f098c01c780733 with neuron-cc
```

```
INFO:tensorflow:Number of operations in TensorFlow session: 4638
INFO:tensorflow:Number of operations after tf.neuron optimizations: 556
INFO:tensorflow:Number of operations placed on Neuron runtime: 554
INFO:tensorflow:Successfully converted ./ws_resnet50/resnet50 to ./ws_resnet50/
resnet50_neuron
...
```

After compilation, the saved model is zipped at **`ws_resnet50/resnet50_neuron.zip`**. Unzip the model and download the sample image for inference using the following commands:

```
unzip ws_resnet50/resnet50_neuron.zip -d .
curl -O https://raw.githubusercontent.com/awslabs/mxnet-model-server/master/docs/
images/kitten_small.jpg
```

ResNet50 Inference

Create a Python script called **`tensorflow_infer_resnet50.py`** that has the following content. This script runs inference on the downloaded model using a previously compiled inference model.

```
import os
import numpy as np
import tensorflow as tf
from tensorflow.keras.preprocessing import image
from tensorflow.keras.applications import resnet50

# Create input from image
img_sgl = image.load_img('kitten_small.jpg', target_size=(224, 224))
img_arr = image.img_to_array(img_sgl)
img_arr2 = np.expand_dims(img_arr, axis=0)
img_arr3 = resnet50.preprocess_input(img_arr2)
# Load model
COMPILED_MODEL_DIR = './ws_resnet50/resnet50_neuron/'
predictor_inferentia = tf.contrib.predictor.from_saved_model(COMPILED_MODEL_DIR)
# Run inference
model_feed_dict={'input': img_arr3}
infa_rslts = predictor_inferentia(model_feed_dict);
# Display results
print(resnet50.decode_predictions(infa_rslts["output"], top=5)[0])
```

Run inference on the model using the following command:

```
python tensorflow_infer_resnet50.py
```

Your output should look like the following:

```
...
[('n02123045', 'tabby', 0.6918919), ('n02127052', 'lynx', 0.12770271), ('n02123159',
 'tiger_cat', 0.08277027), ('n02124075', 'Egyptian_cat', 0.06418919), ('n02128757',
 'snow_leopard', 0.009290541)]
```

Next Step

Using AWS Neuron TensorFlow Serving

Using AWS Neuron TensorFlow Serving

This tutorial shows how to construct a graph and add an AWS Neuron compilation step before exporting the saved model to use with TensorFlow Serving. TensorFlow Serving is a serving system that allows you to scale-up inference across a network. Neuron TensorFlow Serving uses the same API as normal TensorFlow Serving. The only difference is that a saved model must be compiled for AWS Inferentia and the entry point is a different binary named `tensorflow_model_server_neuron`. The binary is found at `/usr/local/bin/tensorflow_model_server_neuron` and is pre-installed in the DLAMI.

For more information about the Neuron SDK, see the AWS Neuron SDK documentation.

Contents

- Prerequisites
- Activate the Conda environment
- Compile and Export the Saved Model
- Serving the Saved Model
- Generate inference requests to the model server

Prerequisites

Before using this tutorial, you should have completed the set up steps in Launching a DLAMI Instance with AWS Neuron. You should also have a familiarity with deep learning and using the DLAMI.

Activate the Conda environment

Activate the TensorFlow-Neuron conda environment using the following command:

```
source activate aws_neuron_tensorflow_p36
```

If you need to exit the current conda environment, run:

```
source deactivate
```

Compile and Export the Saved Model

Create a Python script called `tensorflow-model-server-compile.py` with the following content. This script constructs a graph and compiles it using Neuron. It then exports the compiled graph as a saved model.

```
import tensorflow as tf
import tensorflow.neuron
import os

tf.keras.backend.set_learning_phase(0)
model = tf.keras.applications.ResNet50(weights='imagenet')
sess = tf.keras.backend.get_session()
inputs = {'input': model.inputs[0]}
outputs = {'output': model.outputs[0]}

# save the model using tf.saved_model.simple_save
modeldir = "./resnet50/1"
tf.saved_model.simple_save(sess, modeldir, inputs, outputs)

# compile the model for Inferentia
neuron_modeldir = os.path.join(os.path.expanduser('~'), 'resnet50_inf1', '1')
tf.neuron.saved_model.compile(modeldir, neuron_modeldir, batch_size=1)
```

Compile the model using the following command:

```
python tensorflow-model-server-compile.py
```

Your output should look like the following:

```
...
INFO:tensorflow:fusing subgraph neuron_op_d6f098c01c780733 with neuron-cc
INFO:tensorflow:Number of operations in TensorFlow session: 4638
INFO:tensorflow:Number of operations after tf.neuron optimizations: 556
INFO:tensorflow:Number of operations placed on Neuron runtime: 554
INFO:tensorflow:Successfully converted ./resnet50/1 to /home/ubuntu/resnet50_inf1/1
```

Serving the Saved Model

Once the model has been compiled, you can use the following command to serve the saved model with the tensorflow_model_server_neuron binary:

```
tensorflow_model_server_neuron --model_name=resnet50_inf1 \
    --model_base_path=$HOME/resnet50_inf1/ --port=8500 &
```

Your output should look like the following. The compiled model is staged in the Inferentia device's DRAM by the server to prepare for inference.

```
...
2019-11-22 01:20:32.075856: I external/org_tensorflow/tensorflow/cc/saved_model/
loader.cc:311] SavedModel load for tags { serve }; Status: success. Took 40764
 microseconds.
2019-11-22 01:20:32.075888: I tensorflow_serving/servables/tensorflow/
saved_model_warmup.cc:105] No warmup data file found at /home/ubuntu/resnet50_inf1/1/
assets.extra/tf_serving_warmup_requests
2019-11-22 01:20:32.075950: I tensorflow_serving/core/loader_harness.cc:87]
 Successfully loaded servable version {name: resnet50_inf1 version: 1}
2019-11-22 01:20:32.077859: I tensorflow_serving/model_servers/
server.cc:353] Running gRPC ModelServer at 0.0.0.0:8500 ...
```

Generate inference requests to the model server

Create a Python script called `tensorflow-model-server-infer.py` with the following content. This script runs inference via gRPC, which is service framework.

```
import numpy as np
```

```
import grpc
import tensorflow as tf
from tensorflow.keras.preprocessing import image
from tensorflow.keras.applications.resnet50 import preprocess_input
from tensorflow_serving.apis import predict_pb2
from tensorflow_serving.apis import prediction_service_pb2_grpc
from tensorflow.keras.applications.resnet50 import decode_predictions

if __name__ == '__main__':
    channel = grpc.insecure_channel('localhost:8500')
    stub = prediction_service_pb2_grpc.PredictionServiceStub(channel)
    img_file = tf.keras.utils.get_file(
        "./kitten_small.jpg",
        "https://raw.githubusercontent.com/awslabs/mxnet-model-server/master/docs/
images/kitten_small.jpg")
    img = image.load_img(img_file, target_size=(224, 224))
    img_array = preprocess_input(image.img_to_array(img)[None, ...])
    request = predict_pb2.PredictRequest()
    request.model_spec.name = 'resnet50_inf1'
    request.inputs['input'].CopyFrom(
        tf.contrib.util.make_tensor_proto(img_array, shape=img_array.shape))
    result = stub.Predict(request)
    prediction = tf.make_ndarray(result.outputs['output'])
    print(decode_predictions(prediction))
```

Run inference on the model by using gRPC with the following command:

```
python tensorflow-model-server-infer.py
```

Your output should look like the following:

```
[[('n02123045', 'tabby', 0.6918919), ('n02127052', 'lynx', 0.12770271), ('n02123159',
 'tiger_cat', 0.08277027), ('n02124075', 'Egyptian_cat', 0.06418919), ('n02128757',
 'snow_leopard', 0.009290541)]]
```

Using MXNet-Neuron and the AWS Neuron Compiler

The MXNet-Neuron compilation API provides a method to compile a model graph that you can run on an AWS Inferentia device.

In this example, you use the API to compile a ResNet-50 model and use it to run inference.

For more information about the Neuron SDK, see the AWS Neuron SDK documentation.

Contents

- Prerequisites
- Activate the Conda Environment
- Resnet50 Compilation
- ResNet50 Inference

Prerequisites

Before using this tutorial, you should have completed the set up steps in Launching a DLAMI Instance with AWS Neuron. You should also have a familiarity with deep learning and using the DLAMI.

Activate the Conda Environment

Activate the MXNet-Neuron conda environment using the following command:

```
source activate aws_neuron_mxnet_p36
```

To exit the current conda environment, run:

```
source deactivate
```

Resnet50 Compilation

Create a Python script called **`mxnet_compile_resnet50.py`** with the following content. This script uses the MXNet-Neuron compilation Python API to compile a ResNet-50 model.

```
import mxnet as mx
import numpy as np

print("downloading...")
path='http://data.mxnet.io/models/imagenet/'
mx.test_utils.download(path+'resnet/50-layers/resnet-50-0000.params')
mx.test_utils.download(path+'resnet/50-layers/resnet-50-symbol.json')
print("download finished.")
```

```
sym, args, aux = mx.model.load_checkpoint('resnet-50', 0)

print("compile for inferentia using neuron... this will take a few minutes...")
inputs = { "data" : mx.nd.ones([1,3,224,224], name='data', dtype='float32') }

sym, args, aux = mx.contrib.neuron.compile(sym, args, aux, inputs)

print("save compiled model...")
mx.model.save_checkpoint("compiled_resnet50", 0, sym, args, aux)
```

Compile the model using the following command:

```
python mxnet_compile_resnet50.py
```

Compilation will take a few minutes. When compilation has finished, the following files will be in your current directory:

```
resnet-50-0000.params
resnet-50-symbol.json
compiled_resnet50-0000.params
compiled_resnet50-symbol.json
```

ResNet50 Inference

Create a Python script called **`mxnet_infer_resnet50.py`** with the following content. This script downloads a sample image and uses it to run inference with the compiled model.

```
import mxnet as mx
import numpy as np

path='http://data.mxnet.io/models/imagenet/'
mx.test_utils.download(path+'synset.txt')

fname = mx.test_utils.download('https://raw.githubusercontent.com/awslabs/mxnet-model-
server/master/docs/images/kitten_small.jpg')
img = mx.image.imread(fname)

# convert into format (batch, RGB, width, height)
```

```
img = mx.image.imresize(img, 224, 224)
# resize
img = img.transpose((2, 0, 1))
# Channel first
img = img.expand_dims(axis=0)
# batchify
img = img.astype(dtype='float32')

sym, args, aux = mx.model.load_checkpoint('compiled_resnet50', 0)
softmax = mx.nd.random_normal(shape=(1,))
args['softmax_label'] = softmax
args['data'] = img
# Inferentia context
ctx = mx.neuron()

exe = sym.bind(ctx=ctx, args=args, aux_states=aux, grad_req='null')
with open('synset.txt', 'r') as f:
    labels = [l.rstrip() for l in f]

exe.forward(data=img)
prob = exe.outputs[0].asnumpy()
# print the top-5
prob = np.squeeze(prob)
a = np.argsort(prob)[::-1]
for i in a[0:5]:
    print('probability=%f, class=%s' %(prob[i], labels[i]))
```

Run inference with the compiled model using the following command:

```
python mxnet_infer_resnet50.py
```

Your output should look like the following:

```
probability=0.642454, class=n02123045 tabby, tabby cat
probability=0.189407, class=n02123159 tiger cat
probability=0.100798, class=n02124075 Egyptian cat
probability=0.030649, class=n02127052 lynx, catamount
probability=0.016278, class=n02129604 tiger, Panthera tigris
```

Next Step

Using MXNet-Neuron Model Serving

Using MXNet-Neuron Model Serving

In this tutorial, you learn to use a pre-trained MXNet model to perform real-time image classification with Multi Model Server (MMS). MMS is a flexible and easy-to-use tool for serving deep learning models that are trained using any machine learning or deep learning framework. This tutorial includes a compilation step using AWS Neuron and an implementation of MMS using MXNet.

For more information about the Neuron SDK, see the AWS Neuron SDK documentation.

Contents

- Prerequisites
- Activate the Conda Environment
- Download the Example Code
- Compile the Model
- Run Inference

Prerequisites

Before using this tutorial, you should have completed the set up steps in Launching a DLAMI Instance with AWS Neuron. You should also have a familiarity with deep learning and using the DLAMI.

Activate the Conda Environment

Activate the MXNet-Neuron conda environment by using the following command:

```
source activate aws_neuron_mxnet_p36
```

To exit the current conda environment, run:

```
source deactivate
```

Download the Example Code

To run this example, download the example code using the following commands:

```
git clone https://github.com/awslabs/multi-model-server
```

```
cd multi-model-server/examples/mxnet_vision
```

Compile the Model

Create a Python script called `multi-model-server-compile.py` with the following content. This script compiles the ResNet50 model to the Inferentia device target.

```
import mxnet as mx
from mxnet.contrib import neuron
import numpy as np

path='http://data.mxnet.io/models/imagenet/'
mx.test_utils.download(path+'resnet/50-layers/resnet-50-0000.params')
mx.test_utils.download(path+'resnet/50-layers/resnet-50-symbol.json')
mx.test_utils.download(path+'synset.txt')

nn_name = "resnet-50"

#Load a model
sym, args, auxs = mx.model.load_checkpoint(nn_name, 0)

#Define compilation parameters#  - input shape and dtype
inputs = {'data' : mx.nd.zeros([1,3,224,224], dtype='float32') }

# compile graph to inferentia target
csym, cargs, cauxs = neuron.compile(sym, args, auxs, inputs)

# save compiled model
mx.model.save_checkpoint(nn_name + "_compiled", 0, csym, cargs, cauxs)
```

To compile the model, use the following command:

```
python multi-model-server-compile.py
```

Your output should look like the following:

```
...
[21:18:40] src/nnvm/legacy_json_util.cc:209: Loading symbol saved by previous version
 v0.8.0. Attempting to upgrade...
[21:18:40] src/nnvm/legacy_json_util.cc:217: Symbol successfully upgraded!
[21:19:00] src/operator/subgraph/build_subgraph.cc:698: start to execute partition
 graph.
```

```
[21:19:00] src/nnvm/legacy_json_util.cc:209: Loading symbol saved by previous version
 v0.8.0. Attempting to upgrade...
[21:19:00] src/nnvm/legacy_json_util.cc:217: Symbol successfully upgraded!
```

Create a file named `signature.json` with the following content to configure the input name and shape:

```
{
  "inputs": [
    {
      "data_name": "data",
      "data_shape": [
        1,
        3,
        224,
        224
      ]
    }
  ]
}
```

Download the `synset.txt` file by using the following command. This file is a list of names for ImageNet prediction classes.

```
curl -O https://s3.amazonaws.com/model-server/model_archive_1.0/examples/
squeezenet_v1.1/synset.txt
```

Create a custom service class following the template in the `model_server_template` folder. Copy the template into your current working directory by using the following command:

```
cp -r ../model_service_template/* .
```

Edit the `mxnet_model_service.py` module to replace the `mx.cpu()` context with the `mx.neuron()` context as follows. You also need to comment out the unnecessary data copy for `model_input` because MXNet-Neuron does not support the NDArray and Gluon APIs.

```
...
self.mxnet_ctx = mx.neuron() if gpu_id is None else mx.gpu(gpu_id)
...
#model_input = [item.as_in_context(self.mxnet_ctx) for item in model_input]
```

Package the model with model-archiver using the following commands:

```
cd ~/multi-model-server/examples
model-archiver --force --model-name resnet-50_compiled --model-path mxnet_vision --
handler mxnet_vision_service:handle
```

Run Inference

Start the Multi Model Server and load the model that uses the RESTful API by using the following commands. Ensure that **neuron-rtd** is running with the default settings.

```
cd ~/multi-model-server/
multi-model-server --start --model-store examples > /dev/null # Pipe to log file if you
 want to keep a log of MMS
curl -v -X POST "http://localhost:8081/models?
initial_workers=1&max_workers=4&synchronous=true&url=resnet-50_compiled.mar"
sleep 10 # allow sufficient time to load model
```

Run inference using an example image with the following commands:

```
curl -O https://raw.githubusercontent.com/awslabs/multi-model-server/master/docs/
images/kitten_small.jpg
curl -X POST http://127.0.0.1:8080/predictions/resnet-50_compiled -T kitten_small.jpg
```

Your output should look like the following:

```
[
  {
    "probability": 0.6388034820556641,
    "class": "n02123045 tabby, tabby cat"
  },
  {
    "probability": 0.16900072991847992,
    "class": "n02123159 tiger cat"
  },
  {
    "probability": 0.12221276015043259,
    "class": "n02124075 Egyptian cat"
  },
  {
    "probability": 0.028706775978207588,
    "class": "n02127052 lynx, catamount"
```

```
  },
  {
    "probability": 0.01915954425930977,
    "class": "n02129604 tiger, Panthera tigris"
  }
]
```

To cleanup after the test, issue a delete command via the RESTful API and stop the model server using the following commands:

```
curl -X DELETE http://127.0.0.1:8081/models/resnet-50_compiled

multi-model-server --stop
```

You should see the following output:

```
{
  "status": "Model \"resnet-50_compiled\" unregistered"
}
Model server stopped.
Found 1 models and 1 NCGs.
Unloading 10001 (MODEL_STATUS_STARTED) :: success
Destroying NCG 1 :: success
```

Using PyTorch-Neuron and the AWS Neuron Compiler

The PyTorch-Neuron compilation API provides a method to compile a model graph that you can run on an AWS Inferentia device.

A trained model must be compiled to an Inferentia target before it can be deployed on Inf1 instances. The following tutorial compiles the torchvision ResNet50 model and exports it as a saved TorchScript module. This model is then used to run inference.

For convenience, this tutorial uses an Inf1 instance for both compilation and inference. In practice, you may compile your model using another instance type, such as the c5 instance family. You must then deploy your compiled model to the Inf1 inference server. For more information, see the AWS Neuron PyTorch SDK Documentation.

Contents

- Prerequisites
- Activate the Conda Environment

- Resnet50 Compilation
- ResNet50 Inference

Prerequisites

Before using this tutorial, you should have completed the set up steps in Launching a DLAMI Instance with AWS Neuron. You should also have a familiarity with deep learning and using the DLAMI.

Activate the Conda Environment

Activate the PyTorch-Neuron conda environment using the following command:

```
source activate aws_neuron_pytorch_p36
```

To exit the current conda environment, run:

```
source deactivate
```

Resnet50 Compilation

Create a Python script called **`pytorch_trace_resnet50.py`** with the following content. This script uses the PyTorch-Neuron compilation Python API to compile a ResNet-50 model.

> **Note**
>
> There is a dependency between versions of torchvision and the torch package that you should be aware of when compiling torchvision models. These dependency rules can be managed through pip. Torchvision==0.6.1 matches the torch==1.5.1 release, while torchvision==0.8.2 matches the torch==1.7.1 release.

```
import torch
import numpy as np
import os
import torch_neuron
from torchvision import models

image = torch.zeros([1, 3, 224, 224], dtype=torch.float32)
```

```
## Load a pretrained ResNet50 model
model = models.resnet50(pretrained=True)

## Tell the model we are using it for evaluation (not training)
model.eval()
model_neuron = torch.neuron.trace(model, example_inputs=[image])

## Export to saved model
model_neuron.save("resnet50_neuron.pt")
```

Run the compilation script.

```
python pytorch_trace_resnet50.py
```

Compilation will take a few minutes. When compilation has finished, the compiled model is saved as `resnet50_neuron.pt` in the local directory.

ResNet50 Inference

Create a Python script called **`pytorch_infer_resnet50.py`** with the following content. This script downloads a sample image and uses it to run inference with the compiled model.

```
import os
import time
import torch
import torch_neuron
import json
import numpy as np

from urllib import request

from torchvision import models, transforms, datasets

## Create an image directory containing a small kitten
os.makedirs("./torch_neuron_test/images", exist_ok=True)
request.urlretrieve("https://raw.githubusercontent.com/awslabs/mxnet-model-server/
master/docs/images/kitten_small.jpg",
                    "./torch_neuron_test/images/kitten_small.jpg")


## Fetch labels to output the top classifications
```

```
request.urlretrieve("https://s3.amazonaws.com/deep-learning-models/image-models/
imagenet_class_index.json","imagenet_class_index.json")
idx2label = []

with open("imagenet_class_index.json", "r") as read_file:
    class_idx = json.load(read_file)
    idx2label = [class_idx[str(k)][1] for k in range(len(class_idx))]

## Import a sample image and normalize it into a tensor
normalize = transforms.Normalize(
    mean=[0.485, 0.456, 0.406],
    std=[0.229, 0.224, 0.225])

eval_dataset = datasets.ImageFolder(
    os.path.dirname("./torch_neuron_test/"),
    transforms.Compose([
    transforms.Resize([224, 224]),
    transforms.ToTensor(),
    normalize,
    ])
)

image, _ = eval_dataset[0]
image = torch.tensor(image.numpy()[np.newaxis, ...])

## Load model
model_neuron = torch.jit.load( 'resnet50_neuron.pt' )

## Predict
results = model_neuron( image )

# Get the top 5 results
top5_idx = results[0].sort()[1][-5:]

# Lookup and print the top 5 labels
top5_labels = [idx2label[idx] for idx in top5_idx]

print("Top 5 labels:\n {}".format(top5_labels) )
```

Run inference with the compiled model using the following command:

```
python pytorch_infer_resnet50.py
```

Your output should look like the following:

```
Top 5 labels:
 ['tiger', 'lynx', 'tiger_cat', 'Egyptian_cat', 'tabby']
```

The ARM64 DLAMI

AWS ARM64 GPU DLAMIs are designed to provide high performance and cost efficiency for deep learning workloads. Specifically, the G5g instance type features the Arm64-based AWS Graviton2 processor, which was built from the ground up by AWS and optimized for how customers run their workloads in the cloud. AWS ARM64 GPU DLAMIs are pre-configured with Docker, NVIDIA Docker, NVIDIA Driver, CUDA, CuDNN, NCCL, as well as popular machine learning frameworks such as TensorFlow and PyTorch.

With the G5g instance type, you can take advantage of the price and performance benefits of Graviton2 to deploy GPU-accelerated deep learning models at a significantly lower cost when compared with x86-based instances with GPU acceleration.

Select a ARM64 DLAMI

Launch a G5g instance with the ARM64 DLAMI of your choice.

For step-by-step instructions on launching a DLAMI, see Launching and Configuring a DLAMI.

For a list of the most recent ARM64 DLAMIs, see the Release Notes for DLAMI.

Get Started

The following topics show you how to get started using the ARM64 DLAMI.

Contents

- Using the ARM64 GPU PyTorch DLAMI

Using the ARM64 GPU PyTorch DLAMI

The AWS Deep Learning AMIs is ready to use with Arm64 processor-based GPUs, and comes optimized for PyTorch. The ARM64 GPU PyTorch DLAMI includes a Python environment pre-configured with PyTorch, TorchVision, and TorchServe for deep learning training and inference use cases.

Contents

- Verify PyTorch Python Environment
- Run Training Sample with PyTorch
- Run Inference Sample with PyTorch

Verify PyTorch Python Environment

Connect to your G5g instance and activate the base Conda environment with the following command:

```
source activate base
```

Your command prompt should indicate that you are working in the base Conda environment, which contains PyTorch, TorchVision, and other libraries.

```
(base) $
```

Verify the default tool paths of the PyTorch environment:

```
(base) $ which python
(base) $ which pip
(base) $ which conda
(base) $ which mamba
>>> import torch, torchvision
>>> torch.__version__
>>> torchvision.__version__
>>> v = torch.autograd.Variable(torch.randn(10, 3, 224, 224))
>>> v = torch.autograd.Variable(torch.randn(10, 3, 224, 224)).cuda()
>>> assert isinstance(v, torch.Tensor)
```

Run Training Sample with PyTorch

Run a sample MNIST training job:

```
git clone https://github.com/pytorch/examples.git
cd examples/mnist
python main.py
```

Your output should look similar to the following:

```
...
Train Epoch: 14 [56320/60000 (94%)]    Loss: 0.021424
Train Epoch: 14 [56960/60000 (95%)]    Loss: 0.023695
Train Epoch: 14 [57600/60000 (96%)]    Loss: 0.001973
Train Epoch: 14 [58240/60000 (97%)]    Loss: 0.007121
Train Epoch: 14 [58880/60000 (98%)]    Loss: 0.003717
Train Epoch: 14 [59520/60000 (99%)]    Loss: 0.001729
Test set: Average loss: 0.0275, Accuracy: 9916/10000 (99%)
```

Run Inference Sample with PyTorch

Use the following commands to download a pre-trained densenet161 model and run inference using TorchServe:

```
# Set up TorchServe
cd $HOME
git clone https://github.com/pytorch/serve.git
mkdir -p serve/model_store
cd serve

# Download a pre-trained densenet161 model
wget https://download.pytorch.org/models/densenet161-8d451a50.pth >/dev/null

# Save the model using torch-model-archiver
torch-model-archiver --model-name densenet161 \
    --version 1.0 \
    --model-file examples/image_classifier/densenet_161/model.py \
    --serialized-file densenet161-8d451a50.pth \
    --handler image_classifier \
    --extra-files examples/image_classifier/index_to_name.json  \
    --export-path model_store

# Start the model server
torchserve --start --no-config-snapshots \
    --model-store model_store \
    --models densenet161=densenet161.mar &> torchserve.log

# Wait for the model server to start
sleep 30

# Run a prediction request
```

```
curl http://127.0.0.1:8080/predictions/densenet161 -T examples/image_classifier/
kitten.jpg
```

Your output should look similar to the following:

```
{
  "tiger_cat": 0.4693363308906555,
  "tabby": 0.4633873701095581,
  "Egyptian_cat": 0.06456123292446136,
  "lynx": 0.0012828150065615773,
  "plastic_bag": 0.00023322898778133094
}
```

Use the following commands to unregister the densenet161 model and stop the server:

```
curl -X DELETE http://localhost:8081/models/densenet161/1.0
torchserve --stop
```

Your output should look similar to the following:

```
{
  "status": "Model \"densenet161\" unregistered"
}
TorchServe has stopped.
```

Inference

This section provides tutorials on how to run inference using the DLAMI's frameworks and tools.

Inference Tools

- TensorFlow Serving

Model Serving

The following are model serving options installed on the Deep Learning AMI with Conda. Click on one of the options to learn how to use it.

Topics

- TensorFlow Serving

- TorchServe

TensorFlow Serving

TensorFlow Serving is a flexible, high-performance serving system for machine learning models.

The `tensorflow-serving-api` is pre-installed with single framwork DLAMI. To use tensorflow serving, first activate the TensorFlow environment.

```
$ source /opt/tensorflow/bin/activate
```

Then use your preferred text editor to create a script that has the following content. Name it `test_train_mnist.py`. This script is referenced from TensorFlow Tutorial which will train and evaluate a neural network machine learning model that classifies images.

```
import tensorflow as tf
mnist = tf.keras.datasets.mnist

(x_train, y_train),(x_test, y_test) = mnist.load_data()
x_train, x_test = x_train / 255.0, x_test / 255.0

model = tf.keras.models.Sequential([
  tf.keras.layers.Flatten(input_shape=(28, 28)),
  tf.keras.layers.Dense(128, activation='relu'),
  tf.keras.layers.Dropout(0.2),
  tf.keras.layers.Dense(10, activation='softmax')
])

model.compile(optimizer='adam',
              loss='sparse_categorical_crossentropy',
              metrics=['accuracy'])

model.fit(x_train, y_train, epochs=5)
model.evaluate(x_test, y_test)
```

Now run the script passing the server location and port and the husky photo's filename as the parameters.

```
$ /opt/tensorflow/bin/python3 test_train_mnist.py
```

Be patient, as this script may take a while before providing any output. When the training is complete you should see the following:

```
I0000 00:00:1739482012.389276    4284 device_compiler.h:188] Compiled cluster using
 XLA!  This line is logged at most once for the lifetime of the process.
1875/1875 [==============================] - 24s 2ms/step - loss: 0.2973 - accuracy:
 0.9134
Epoch 2/5
1875/1875 [==============================] - 3s 2ms/step - loss: 0.1422 - accuracy:
 0.9582
Epoch 3/5
1875/1875 [==============================] - 3s 1ms/step - loss: 0.1076 - accuracy:
 0.9687
Epoch 4/5
1875/1875 [==============================] - 3s 2ms/step - loss: 0.0872 - accuracy:
 0.9731
Epoch 5/5
1875/1875 [==============================] - 3s 1ms/step - loss: 0.0731 - accuracy:
 0.9771
313/313 [==============================] - 0s 1ms/step - loss: 0.0749 - accuracy:
 0.9780
```

More Features and Examples

If you are interested in learning more about TensorFlow Serving, check out the TensorFlow website.

TorchServe

TorchServe is a flexible tool for serving deep learning models that have been exported from PyTorch. TorchServe comes preinstalled with the Deep Learning AMI with Conda.

For more information on using TorchServe, see Model Server for PyTorch Documentation.

Topics

Serve an Image Classification Model on TorchServe

This tutorial shows how to serve an image classification model with TorchServe. It uses a DenseNet-161 model provided by PyTorch. Once the server is running, it listens for prediction requests. When you upload an image, in this case, an image of a kitten, the server returns a prediction of the top 5 matching classes out of the classes that the model was trained on.

To serve an example image classification model on TorchServe

1. Connect to an Amazon Elastic Compute Cloud (Amazon EC2) instance with Deep Learning AMI with Conda v34 or later.
2. Activate the `pytorch_p310` environment.

```
source activate pytorch_p310
```

3. Clone the TorchServe repository, then create a directory to store your models.

```
git clone https://github.com/pytorch/serve.git
mkdir model_store
```

4. Archive the model using the model archiver. The `extra-files` param uses a file from the `TorchServe` repo, so update the path if necessary. For more information about the model archiver, see Torch Model archiver for TorchServe.

```
wget https://download.pytorch.org/models/densenet161-8d451a50.pth
torch-model-archiver --model-name densenet161 --version 1.0 --model-file ./
serve/examples/image_classifier/densenet_161/model.py --serialized-file
 densenet161-8d451a50.pth --export-path model_store --extra-files ./serve/examples/
image_classifier/index_to_name.json --handler image_classifier
```

5. Run TorchServe to start an endpoint. Adding `> /dev/null` quiets the log output.

```
torchserve --start --ncs --model-store model_store --models densenet161.mar > /dev/
null
```

6. Download an image of a kitten and send it to the TorchServe predict endpoint:

```
curl -O https://s3.amazonaws.com/model-server/inputs/kitten.jpg
curl http://127.0.0.1:8080/predictions/densenet161 -T kitten.jpg
```

The predict endpoint returns a prediction in JSON similar to the following top five predictions, where the image has a 47% probability of containing an Egyptian cat, followed by a 46% chance it has a tabby cat.

```
{
 "tiger_cat": 0.46933576464653015,
 "tabby": 0.463387668132782,
```

```
 "Egyptian_cat": 0.0645613968372345,
 "lynx": 0.0012828196631744504,
 "plastic_bag": 0.0002332305884920060 6
}
```

7. When you finish testing, stop the server:

```
torchserve --stop
```

Other Examples

TorchServe has a variety of examples that you can run on your DLAMI instance. You can view them on the TorchServe project repository examples page.

More Info

For more TorchServe documentation, including how to set up TorchServe with Docker and the latest TorchServe features, see the TorchServe project pageon GitHub.

Upgrading Your DLAMI

Here you will find information on upgrading your DLAMI and tips on updating software on your DLAMI.

Always keep your operating system and other installed software up to date by applying patches and updates as soon as they become available.

If you are using Amazon Linux or Ubuntu, when you login to your DLAMI, you are notified if updates are available and see instructions for updating. For further information on Amazon Linux maintenance, see Updating Instance Software. For Ubuntu instances, refer to the official Ubuntu documentation.

On Windows, check Windows Update regularly for software and security updates. If you prefer, have updates applied automatically.

> **Important**
>
> For information about the Meltdown and Spectre vulnerabilities and how to patch your operating system to address them, see Security Bulletin AWS-2018-013.

Topics

- Upgrading to a New DLAMI Version
- Tips for Software Updates
- Receive Notifications on New Updates

Upgrading to a New DLAMI Version

DLAMI's system images are updated on a regular basis to take advantage of new deep learning framework releases, CUDA and other software updates, and performance tuning. If you have been using a DLAMI for some time and want to take advantage of an update, you would need to launch a new instance. You would also have to manually transfer any datasets, checkpoints, or other valuable data. Instead, you may use Amazon EBS to retain your data and attach it to a new DLAMI. In this way, you can upgrade often, while minimizing the time it takes to transition your data.

> **Note**
>
> When attaching and moving Amazon EBS volumes between DLAMIs, you must have both the DLAMIs and the new volume in the same Availability Zone.

1. Use the Amazon EC2console to create a new Amazon EBS volume. For detailed directions, see Creating an Amazon EBS Volume.
2. Attach your newly created Amazon EBS volume to your existing DLAMI. For detailed directions, see Attaching an Amazon EBS Volume.
3. Transfer your data, such as datasets, checkpoints, and configuration files.
4. Launch a DLAMI. For detailed directions, see Setting up a DLAMI instance.
5. Detach the Amazon EBS volume from your old DLAMI. For detailed directions, see Detaching an Amazon EBS Volume.
6. Attach the Amazon EBS volume to your new DLAMI. Follow the instructions from the Step 2 to attach the volume.
7. After you verify that your data is available on your new DLAMI, stop and terminate your old DLAMI. For detailed clean-up instructions, see Cleaning up a DLAMI instance.

Tips for Software Updates

From time to time, you may want to manually update software on your DLAMI. It is generally recommended that you use `pip` to update Python packages. You should also use `pip` to update packages within a Conda environment on the Deep Learning AMI with Conda. Refer to the particular framework's or software's website for upgrading and installation instructions.

> **Note**
>
> We cannot guarantee that a package update will be successful. Attempting to update a package in an environment with incompatible dependencies can result in a failure. In such a case, you should contact the library maintainer to see if it is possible to update the package dependencies. Alternatively, you can attempt to modify the environment in such a way that allows the update. However, this modification will likely mean removing or updating existing packages, which means that we can no longer guarantee stability of this environment.

The AWS Deep Learning AMIs comes with many Conda environments and many packages preinstalled. Due to the number of packages preinstalled, finding a set of packages that are guaranteed to be compatible is difficult. You may see a warning "The environment is inconsistent, please check the package plan carefully". DLAMI ensures that all the DLAMI-provided environments are correct, but cannot guarantee that any user installed packages will function correctly.

Receive Notifications on New Updates

> **Note**
>
> AWS Deep Learning AMIs have a weekly release cadence for security patches. Release notifications will be sent for these incremental security patches though they may not be included in official release notes.

You can receive notifications whenever a new DLAMI is released. Notifications are published with Amazon SNS using the following topic.

```
arn:aws:sns:us-west-2:767397762724:dlami-updates
```

Messages are posted here when a new DLAMI is published. The version, metadata, and regional AMI ID's of the AMI will be included in the message.

These messages can be received using several different methods. We recommend that you use the following method.

1. Open the Amazon SNS console.
2. In the navigation bar, change the AWS Region to **US West (Oregon)**, if necessary. You must select the region where the SNS notification that you're subscribing to was created.
3. In the navigation pane, choose **Subscriptions, Create subscription**.
4. For the **Create subscription** dialog box, do the following:
    a. For **Topic ARN**, copy and paste the following Amazon Resource Name (ARN): **`arn:aws:sns:us-west-2:767397762724:dlami-updates`**
    b. For **Protocol**, choose one from **[Amazon SQS, AWS Lamda, Email, Email-JSON]**
    c. For **Endpoint**, enter the email address or **Amazon Resource Name (ARN)** of resource that you will use to receive the notifications.

d. Choose **Create subscription**.

5. You receive a confirmation email with the subject line *AWS Notification - Subscription Confirmation*. Open the email and choose **Confirm subscription** to complete your subscription.

Security in AWS Deep Learning AMIs

Cloud security at AWS is the highest priority. As an AWS customer, you benefit from data centers and network architectures that are built to meet the requirements of the most security-sensitive organizations.

Security is a shared responsibility between AWS and you. The shared responsibility model describes this as security *of* the cloud and security *in* the cloud:

- **Security of the cloud** – AWS is responsible for protecting the infrastructure that runs AWS services in the AWS Cloud. AWS also provides you with services that you can use securely. Third-party auditors regularly test and verify the effectiveness of our security as part of the AWS Compliance Programs. To learn about the compliance programs that apply to AWS Deep Learning AMIs, see AWS Services in Scope by Compliance Program.
- **Security in the cloud** – Your responsibility is determined by the AWS service that you use. You are also responsible for other factors including the sensitivity of your data, your company's requirements, and applicable laws and regulations.

This documentation helps you understand how to apply the shared responsibility model when using DLAMI. The following topics show you how to configure DLAMI to meet your security and compliance objectives. You also learn how to use other AWS services that help you to monitor and secure your DLAMI resources.

For more information, see Security in Amazon EC2 in the *Amazon EC2 User Guide*.

Topics

- Data protection in AWS Deep Learning AMIs
- Identity and access management for AWS Deep Learning AMIs
- Compliance validation for AWS Deep Learning AMIs
- Resilience in AWS Deep Learning AMIs
- Infrastructure security in AWS Deep Learning AMIs
- Monitoring AWS Deep Learning AMIs instances

Data protection in AWS Deep Learning AMIs

The AWS shared responsibility model applies to data protection in AWS Deep Learning AMIs. As described in this model, AWS is responsible for protecting the global infrastructure that runs all of the AWS Cloud. You are responsible for maintaining control over your content that is hosted on this infrastructure. You are also responsible for the security configuration and management tasks for the AWS services that you use. For more information about data privacy, see the Data Privacy FAQ. For information about data protection in Europe, see the AWS Shared Responsibility Model and GDPR blog post on the *AWS Security Blog*.

For data protection purposes, we recommend that you protect AWS account credentials and set up individual users with AWS IAM Identity Center or AWS Identity and Access Management (IAM). That way, each user is given only the permissions necessary to fulfill their job duties. We also recommend that you secure your data in the following ways:

- Use multi-factor authentication (MFA) with each account.
- Use SSL/TLS to communicate with AWS resources. We require TLS 1.2 and recommend TLS 1.3.
- Set up API and user activity logging with AWS CloudTrail. For information about using CloudTrail trails to capture AWS activities, see Working with CloudTrail trails in the *AWS CloudTrail User Guide*.
- Use AWS encryption solutions, along with all default security controls within AWS services.
- Use advanced managed security services such as Amazon Macie, which assists in discovering and securing sensitive data that is stored in Amazon S3.
- If you require FIPS 140-3 validated cryptographic modules when accessing AWS through a command line interface or an API, use a FIPS endpoint. For more information about the available FIPS endpoints, see Federal Information Processing Standard (FIPS) 140-3.

We strongly recommend that you never put confidential or sensitive information, such as your customers' email addresses, into tags or free-form text fields such as a **Name** field. This includes when you work with DLAMI or other AWS services using the console, API, AWS CLI, or AWS SDKs. Any data that you enter into tags or free-form text fields used for names may be used for billing or diagnostic logs. If you provide a URL to an external server, we strongly recommend that you do not include credentials information in the URL to validate your request to that server.

Identity and access management for AWS Deep Learning AMIs

AWS Identity and Access Management (IAM) is an AWS service that helps an administrator securely control access to AWS resources. IAM administrators control who can be *authenticated* (signed in) and *authorized* (have permissions) to use DLAMI resources. IAM is an AWS service that you can use with no additional charge.

For more information about identity and access management, see Identity and access management for Amazon EC2.

Topics

- Authenticating with identities
- Managing access using policies
- IAM with Amazon EMR

Authenticating with identities

Authentication is how you sign in to AWS using your identity credentials. You must be authenticated as the AWS account root user, an IAM user, or by assuming an IAM role.

You can sign in as a federated identity using credentials from an identity source like AWS IAM Identity Center (IAM Identity Center), single sign-on authentication, or Google/Facebook credentials. For more information about signing in, see How to sign in to your AWS account in the *AWS Sign-In User Guide*.

For programmatic access, AWS provides an SDK and CLI to cryptographically sign requests. For more information, see AWS Signature Version 4 for API requests in the *IAM User Guide*.

AWS account root user

When you create an AWS account, you begin with one sign-in identity called the AWS account *root user* that has complete access to all AWS services and resources. We strongly recommend that you don't use the root user for everyday tasks. For tasks that require root user credentials, see Tasks that require root user credentials in the *IAM User Guide*.

IAM users and groups

An *IAM user* is an identity with specific permissions for a single person or application. We recommend using temporary credentials instead of IAM users with long-term credentials. For more

information, see Require human users to use federation with an identity provider to access AWS using temporary credentials in the *IAM User Guide*.

An *IAM group* specifies a collection of IAM users and makes permissions easier to manage for large sets of users. For more information, see Use cases for IAM users in the *IAM User Guide*.

IAM roles

An *IAM role* is an identity with specific permissions that provides temporary credentials. You can assume a role by switching from a user to an IAM role (console) or by calling an AWS CLI or AWS API operation. For more information, see Methods to assume a role in the *IAM User Guide*.

IAM roles are useful for federated user access, temporary IAM user permissions, cross-account access, cross-service access, and applications running on Amazon EC2. For more information, see Cross account resource access in IAM in the *IAM User Guide*.

Managing access using policies

You control access in AWS by creating policies and attaching them to AWS identities or resources. A policy defines permissions when associated with an identity or resource. AWS evaluates these policies when a principal makes a request. Most policies are stored in AWS as JSON documents. For more information about JSON policy documents, see Overview of JSON policies in the *IAM User Guide*.

Using policies, administrators specify who has access to what by defining which **principal** can perform **actions** on what **resources**, and under what **conditions**.

By default, users and roles have no permissions. An IAM administrator creates IAM policies and adds them to roles, which users can then assume. IAM policies define permissions regardless of the method used to perform the operation.

Identity-based policies

Identity-based policies are JSON permissions policy documents that you attach to an identity (user, group, or role). These policies control what actions identities can perform, on which resources, and under what conditions. To learn how to create an identity-based policy, see Define custom IAM permissions with customer managed policies in the *IAM User Guide*.

Identity-based policies can be *inline policies* (embedded directly into a single identity) or *managed policies* (standalone policies attached to multiple identities). To learn how to choose between

managed and inline policies, see Choose between managed policies and inline policies in the *IAM User Guide*.

Resource-based policies

Resource-based policies are JSON policy documents that you attach to a resource. Examples include IAM *role trust policies* and Amazon S3 *bucket policies*. In services that support resource-based policies, service administrators can use them to control access to a specific resource. You must specify a principal in a resource-based policy.

Resource-based policies are inline policies that are located in that service. You can't use AWS managed policies from IAM in a resource-based policy.

Access control lists (ACLs)

Access control lists (ACLs) control which principals (account members, users, or roles) have permissions to access a resource. ACLs are similar to resource-based policies, although they do not use the JSON policy document format.

Amazon S3, AWS WAF, and Amazon VPC are examples of services that support ACLs. To learn more about ACLs, see Access control list (ACL) overview in the *Amazon Simple Storage Service Developer Guide*.

Other policy types

AWS supports additional policy types that can set the maximum permissions granted by more common policy types:

- **Permissions boundaries** – Set the maximum permissions that an identity-based policy can grant to an IAM entity. For more information, see Permissions boundaries for IAM entities in the *IAM User Guide*.
- **Service control policies (SCPs)** – Specify the maximum permissions for an organization or organizational unit in AWS Organizations. For more information, see Service control policies in the *AWS Organizations User Guide*.
- **Resource control policies (RCPs)** – Set the maximum available permissions for resources in your accounts. For more information, see Resource control policies (RCPs) in the *AWS Organizations User Guide*.
- **Session policies** – Advanced policies passed as a parameter when creating a temporary session for a role or federated user. For more information, see Session policies in the *IAM User Guide*.

Multiple policy types

When multiple types of policies apply to a request, the resulting permissions are more complicated to understand. To learn how AWS determines whether to allow a request when multiple policy types are involved, see Policy evaluation logic in the *IAM User Guide*.

IAM with Amazon EMR

You can use IAM with Amazon EMR to define users, AWS resources, groups, roles, and policies. You can also control which AWS services these users and roles can access.

For more information about using IAM with Amazon EMR, see AWS Identity and Access Management for Amazon EMR.

Compliance validation for AWS Deep Learning AMIs

Third-party auditors assess the security and compliance of AWS Deep Learning AMIs as part of multiple AWS compliance programs. For information about the supported compliance programs, see Compliance validation for Amazon EC2.

For a list of AWS services in scope of specific compliance programs, see AWS Services in Scope by Compliance Program. For general information, see AWS Compliance Programs.

You can download third-party audit reports using AWS Artifact. For more information, see Downloading Reports in AWS Artifact.

Your compliance responsibility when using DLAMI is determined by the sensitivity of your data, your company's compliance objectives, and applicable laws and regulations. AWS provides the following resources to help with compliance:

- Security and Compliance Quick Start Guides – These deployment guides discuss architectural considerations and provide steps for deploying security- and compliance-focused baseline environments on AWS.
- AWS Compliance Resources – This collection of workbooks and guides might apply to your industry and location.
- Evaluating Resources with AWS Config Rules in the *AWS Config Developer Guide* – The AWS Config service assesses how well your resource configurations comply with internal practices, industry guidelines, and regulations.

- AWS Security Hub CSPM – This AWS service provides a comprehensive view of your security state within AWS. Security Hub CSPM uses security controls to evaluate your AWS resources and to check your compliance against security industry standards and best practices.

Resilience in AWS Deep Learning AMIs

The AWS global infrastructure is built around AWS Regions and Availability Zones. AWS Regions provide multiple physically separated and isolated Availability Zones, which are connected with low-latency, high-throughput, and highly redundant networking. With Availability Zones, you can design and operate applications and databases that automatically fail over between zones without interruption. Availability Zones are more highly available, fault tolerant, and scalable than traditional single or multiple data center infrastructures.

For more information about AWS Regions and Availability Zones, see AWS Global Infrastructure.

For information about Amazon EC2 features to help support your data resiliency and backup needs, see Resilience in Amazon EC2 in the *Amazon EC2 User Guide*.

Infrastructure security in AWS Deep Learning AMIs

The infrastructure security of AWS Deep Learning AMIs is backed by Amazon EC2. For more information, see Infrastructure security in Amazon EC2 in the *Amazon EC2 User Guide*.

Monitoring AWS Deep Learning AMIs instances

Monitoring is an important part of maintaining the reliability, availability, and performance of your AWS Deep Learning AMIs instance and your other AWS solutions. Your DLAMI instance comes with several GPU monitoring tools, including a utility that reports GPU usage statistics to Amazon CloudWatch. For more information, see GPU Monitoring and Optimization, and see Monitor Amazon EC2 resources in the *Amazon EC2 User Guide*.

Opting out of usage tracking for DLAMI instances

The following AWS Deep Learning AMIs operating system distributions include code that allows AWS to collect instance type, instance ID, DLAMI type, and OS information.

> **Note**
>
> AWS doesn't collect or retain any other information about the DLAMI, such as the commands that you use within the DLAMI.

- Amazon Linux 2
- Amazon Linux 2023
- Ubuntu 20.04
- Ubuntu 22.04

To opt out of usage tracking

If you choose, you can opt out of usage tracking for a new DLAMI instance. To opt out, you must add a tag to your Amazon EC2 instance during launch. The tag should use the key `OPT_OUT_TRACKING` with the associated value set to `true`. For more information, see Tag your Amazon EC2 resources in the *Amazon EC2 User Guide*.

DLAMI Support Policy

Here you can find details of the support policy for AWS Deep Learning AMIs (DLAMI).

For a list of the DLAMI frameworks and operating system that AWS currently supports, see the DLAMI Support Policy page. The following terminology applies to all DLAMIs mentioned in the Support policy page and this page:

- **Current version** specifies the framework version in the format *x.y.z*. In this format, *x* refers to the major version, *y* refers to the minor version, and *z* refers to the patch version. For example, for TensorFlow 2.10.1, the major version is 2, the minor version is 10, and the patch version is 1.
- **End of patch** specifies how long AWS supports a particular framework or operating system version.

For detailed information about specific DLAMIs, see Deep Learning AMIs Release Notes.

DLAMI Support FAQs

- What framework versions get security patches?
- Which operating system get security patches?
- What images does AWS publish when new framework versions are released?
- What images get new SageMaker AI/AWS features?
- How is current version defined in the Supported Frameworks table?
- What if I am running a version that is not in the Supported table?
- Do DLAMIs support previous patch versions of a Framework Version?
- How can I find the latest patched image for a supported framework version?
- How frequently are new images released?
- Will my instance be patched in place while my workload is running?
- What happens when a new patched or updated framework version is available?
- Are dependencies updated without changing the framework version?
- When does active support for my framework version end?
- Will images with framework versions that are no longer actively maintained be patched?
- How do I use an older framework version?

- How do I stay up-to-date with support changes in frameworks and their versions?
- Do I need a commercial license to use the Anaconda Repository?

What framework versions get security patches?

If the framework version is under **Supported Framework Versions** in the AWS Deep Learning AMIs Support Policy table, it gets security patches.

Which operating system get security patches?

If the operating system is listed under **Supported Operating System Versions** in the AWS Deep Learning AMIs Support Policy table, it gets security patches.

What images does AWS publish when new framework versions are released?

We publish new DLAMIs soon after new versions of TensorFlow and PyTorch are released. This includes major versions, major-minor versions, and major-minor-patch versions of frameworks. We also update images when new versions of drivers and libraries become available. For more information on image maintenance, see When does active support for my framework version end?

What images get new SageMaker AI/AWS features?

New features typically release in the latest version of DLAMIs for PyTorch and TensorFlow. Refer to the release notes for a specific image for details on new SageMaker AI or AWS features. For a list of available DLAMIs, see Release Notes for DLAMI. For more information on image maintenance, see When does active support for my framework version end?

How is current version defined in the Supported Frameworks table?

The current version in the AWS Deep Learning AMIs Support Policy table refers to the newest framework version that AWS makes available on GitHub. Each latest release includes updates to the drivers, libraries, and relevant packages in the DLAMI. For information on image maintenance, see When does active support for my framework version end?

What if I am running a version that is not in the Supported table?

If you are running a version that is not in the AWS Deep Learning AMIs Support Policy table, you may not have the most updated drivers, libraries, and relevant packages. For a more up-to-date

version, we recommend that you upgrade to one of the supported frameworks or operating system available using the latest DLAMI of your choice. For a list of available DLAMIs, see Release Notes for DLAMI.

Do DLAMIs support previous patch versions of a Framework Version?

No. We support the latest patch version of each framework's latest major version released 365 days from its initial GitHub release as stated in the AWS Deep Learning AMIs Support Policy table. For more information, see What if I am running a version that is not in the Supported table?

How can I find the latest patched image for a supported framework version?

To use a DLAMI with the latest framework version, you can use AWS CLI or SSM parameters to retrieve the DLAMI ID and use it to launch the DLAMI using the EC2 Console. For sample AWS CLI or SSM parameter commands to retrieve the AWS Deep Learning AMIs ID, refer to the DLAMI release notes page single-framework DLAMI release notes. The framework version that you choose must be listed under **Supported Framework Versions** in the AWS Deep Learning AMIs Support Policy table.

How frequently are new images released?

Providing updated patch versions is our highest priority. We routinely create patched images at the earliest opportunity. We monitor for newly patched framework versions (ex. TensorFlow 2.9 to TensorFlow 2.9.1) and new minor release versions (ex. TensorFlow 2.9 to TensorFlow 2.10) and make them available at the earliest opportunity. When an existing version of TensorFlow is released with a new version of CUDA, we release a new DLAMI for that version of TensorFlow with support for the new CUDA version.

Will my instance be patched in place while my workload is running?

No. Patch updates for DLAMI are not "in-place" updates.

You must turn on a new EC2 instance, migrate your workloads and scripts, and then turn off your previous instance.

What happens when a new patched or updated framework version is available?

To be notified of changes in DLAMI, please subscribe to the notifications for the relevant DLAMI, see Receive Notifications on New Updates .

Are dependencies updated without changing the framework version?

We update dependencies without changing the framework version. However, if a dependency update causes an incompatibility, we create an image with a different version. Be sure to check the Release Notes for DLAMI for updated dependency information.

When does active support for my framework version end?

DLAMI images are immutable. Once they are created they do not change. There are four main reasons why active support for a framework version ends:

- Framework version (patch) upgrades
- AWS security patches
- End of patch date (Aging out)
- Dependency end-of-support

> **Note**
>
> Due to the frequency of version patch upgrades and security patches, we recommend checking the release notes page for your DLAMI often, and upgrading when changes are made.

Framework version (patch) upgrades

If you have a DLAMI workload based on TensorFlow 2.7.0 and TensorFlow releases version 2.7.1 on GitHub, then AWS releases a new DLAMI with TensorFlow 2.7.1. The previous images with 2.7.0 are no longer actively maintained once the new image with TensorFlow 2.7.1 is released. The DLAMI with TensorFlow 2.7.0 does not receive further patches. The DLAMI release notes page for TensorFlow 2.7 is then updated with the latest information. There is no individual release note page for each minor patch.

New DLAMIs created due to patch upgrades are designated with a new AMI ID.

AWS security patches

If you have a workload based on an image with TensorFlow 2.7.0 and AWS makes a security patch, then a new version of the DLAMI is released for TensorFlow 2.7.0. The previous version of the images with TensorFlow 2.7.0 is no longer actively maintained. For more information, see Will my instance be patched in place while my workload is running? For steps on finding the latest DLAMI, see How can I find the latest patched image for a supported framework version?

New DLAMIs created due to patch upgrades are designated with a new AMI ID.

End of patch date (Aging out)

DLAMIs hit their end of patch date 365 days after the GitHub release date.

For multi-framework DLAMIs, when one of the framework versions is updated, a new DLAMI with the updated version is required. The DLAMI with the old framework version is no longer actively maintained.

> **Important**
>
> We make an exception when there is a major framework update. For example. if TensorFlow 1.15 updates to TensorFlow 2.0, then we continue to support the most recent version of TensorFlow 1.15 for a period of two years from the date of the GitHub release or six months after the origin framework maintenance team drops support, whichever date is earlier.

Dependency end-of-support

If you are running a workload on a TensorFlow 2.7.0 DLAMI image with Python 3.6 and that version of Python is marked for end-of-support, then all DLAMI images based on Python 3.6 will no longer be actively maintained. Similarly, if an OS version like Ubuntu 16.04 is marked for end-of-support, then all DLAMI images that are dependent on Ubuntu 16.04 will no longer be actively maintained.

Will images with framework versions that are no longer actively maintained be patched?

No. Images that are no longer actively maintained will not have new releases.

How do I use an older framework version?

To use a DLAMI with an older framework version, retrieve the DLAMI ID and use it to launch the DLAMI using the EC2 Console. For AWS CLI commands to retrieve the AMI ID, refer to the release notes page in the single-framework DLAMI release notes.

How do I stay up-to-date with support changes in frameworks and their versions?

Stay up-to-date with DLAMI frameworks and versions using the AWS Deep Learning AMIs Framework Support Policy table, the DLAMI release notes.

Do I need a commercial license to use the Anaconda Repository?

Anaconda shifted to a commercial licensing model for certain users. Actively maintained DLAMIs have been migrated to the publicly available open-source version of Conda (conda-forge) from the Anaconda channel.

DLAMI Support Policy Table

For more details see the Support Policy.

Supported Framework Versions

Framework	Current version	CUDA version	GitHub GA	End of patch
PyTorch	2.9.0	13.0	2025-10-15	2026-10-15
PyTorch	2.8.0	12.9	2025-08-06	2026-08-06
PyTorch	2.7.0	12.8	2025-04-23	2026-04-23
PyTorch	2.6.0	12.6	2025-01-29	2026-01-29

Supported Operating System Versions

Operating System	End of patch
Amazon Linux 2023	2029-06-30
Amazon Linux 2	2026-06-30
Ubuntu 24.04	2029-04-30
Ubuntu 22.04	2027-04-30

Unsupported Framework Versions

Versions listed in this table will appear for 2 years past their support date.

Framework	Current version	CUDA version	GitHub GA	End of patch
PyTorch	2.5.1	12.4	2024-11-24	2025-11-24

Framework	Current version	CUDA version	GitHub GA	End of patch
PyTorch	2.4.1	12.4	2024-07-24	2025-07-24
PyTorch	2.3.0	12.1	2024-04-24	2025-04-24
PyTorch	2.2.0	12.1	2024-01-30	2025-01-30
PyTorch	1.13.1	11.7	2022-10-28	2024-10-28
PyTorch	2.1.0	12.1	2023-10-04	2024-10-04
PyTorch	2.0.0	12.1	2023-03-15	2024-03-15
PyTorch	1.12.1	11.6	2022-07-01	2023-07-01
PyTorch	1.11.0	11.5	2022-03-10	2023-03-10
TensorFlow	2.18.0	12.5	2024-10-24	2026-01-31
TensorFlow	2.17.0	12.3	2024-11-07	2025-11-07
TensorFlow	2.16.0	12.3	2024-03-07	2025-03-07
TensorFlow	2.15.0	12.2	2023-11-14	2024-11-14
TensorFlow	2.13.0	11.8	2023-07-19	2024-07-19
TensorFlow	2.12.0	11.8	2023-03-23	2024-03-23
TensorFlow	2.11.0	11.2	2022-11-18	2023-11-18
TensorFlow	2.10.1	11.2	2022-09-06	2023-09-06
TensorFlow	2.9.3	11.2	2022-05-17	2023-05-17

Unsupported Operating System Versions

Operating System	End of patch
Ubuntu 20.04	2025-05-31
Ubuntu 18.04	2023-05-31

Release Notes Archive

Release notes for DLAMI versions that are no longer supported. These archives provide historical information for reference purposes.

Base DLAMIs

Release Notes

- AWS Deep Learning Base GPU AMI (Ubuntu 20.04)

AWS Deep Learning Base GPU AMI (Ubuntu 20.04)

Out of Support Notice

- Ubuntu Linux 20.04 LTS is reaching end of its five-year LTS window on May 31th 2025 and will no longer be supported by its vendor. Consequently, AWS Deep Learning Base GPU AMI (Ubuntu 20.04) will have no updates after May 31st 2025. Previous releases will continue to be available. Please note that any AMI released publicly gets deprecated by EC2 after 2 years of its creation date. Please refer to Deprecate an Amazon EC2 AMI for more information.
- For 3 months, until the 31st Aug 2025, support will be provided only for functionality issues (not security patches).
- Users of Ubuntu 20.04 DLAMI should move to AWS Deep Learning Base GPU AMI (Ubuntu 22.04) or AWS Deep Learning Base GPU AMI (Ubuntu 24.04). Alternatively, AWS Deep Learning Base AMI (Amazon Linux 2023) can be used.

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) ${YYYY-MM-DD}
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) ${YYYY-MM-DD}

Supported EC2 instances

- Please refer to Important changes to DLAMI.
- Deep Learning with OSS Nvidia Driver supports G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
- Deep Learning with Proprietary Nvidia Driver supports G3 (G3.16x not supported), P3, P3dn

The AMI includes the following:

- **Supported AWS Service**: Amazon EC2
- **Operating System**: Ubuntu 20.04
- **Compute Architecture**: x86
- **Latest available version is installed for the following packages:**
  - **Linux Kernel** 5.15
  - **FSx Lustre**
  - **Docker**
  - **AWS CLI v2** at /usr/local/bin/aws2 and **AWS CLI v1** at /usr/bin/aws
  - **NVIDIA DCGM**
  - **Nvidia container toolkit**:
    - Version command: nvidia-container-cli -V
  - **Nvidia-docker2**:
    - Version command: nvidia-docker version
- **NVIDIA Driver**:
  - OSS Nvidia driver: 550.163.01
  - Proprietary Nvidia driver: 550.163.01
- **NVIDIA CUDA 11.7, 12.1-12.4 stack**:
  - CUDA, NCCL and cuDDN installation directories: /usr/local/cuda-xx.x/
    - Example: /usr/local/cuda-12.1/

- Compiled NCCL Version: 2.22.3+CUDA12.4
- **Default CUDA:** 12.1
  - PATH /usr/local/cuda points to **CUDA 12.1**
  - Updated below env vars:
    - LD_LIBRARY_PATH to have /usr/local/cuda-12.1/lib:/usr/local/cuda-12.1/lib64:/usr/local/cuda-12.1:/usr/local/cuda-12.1/targets/x86_64-linux/lib
    - PATH to have /usr/local/cuda-12.1/bin/:/usr/local/cuda-12.1/include/
    - For any different CUDA version, please update LD_LIBRARY_PATH accordingly.
- **NCCL Tests Location:**
  - all_reduce, all_gather and reduce_scatter: /usr/local/cuda-xx.x/efa/test-cuda-xx.x/
  - To run NCCL tests, LD_LIBRARY_PATH needs to passed having below updates.
    - Common PATHs are already added to LD_LIBRARY_PATH:
      - /opt/amazon/efa/lib:/opt/amazon/openmpi/lib:/opt/aws-ofi-nccl/lib:/usr/local/lib:/usr/lib
    - For any different CUDA version, please update LD_LIBRARY_PATH accordingly.
- **EFA installer**: 1.39.0
- **Nvidia GDRCopy:** 2.4
- **AWS OFI NCCL plugin**: is installed as part of the EFA Installer-aws
  - AWS OFI NCCL now supports multiple NCCL versions with single build
  - **Installation path:** /opt/aws-ofi-nccl/ . Path /opt/aws-ofi-nccl/lib is added to LD_LIBRARY_PATH.
  - **Tests path** for ring, message_transfer: /opt/aws-ofi-nccl/tests
- **EBS volume type**: gp3
- **Python**: /usr/bin/python3.9
- **NVMe Instance Store Location (on Supported EC2 Instances):** /opt/dlami/nvme
- **Query AMI-ID with SSM Parameter (example Region is us-east-1):**
  - **OSS Nvidia Driver:**

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/x86_64/base-oss-nvidia-driver-gpu-ubuntu-20.04/latest/ami-id  \
    --query "Parameter.Value" \
```

```
    --output text
```

- **Proprietary Nvidia Driver:**

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/x86_64/base-proprietary-nvidia-driver-gpu-
ubuntu-20.04/latest/ami-id \
    --query "Parameter.Value" \
    --output text
```

- **Query AMI-ID with AWSCLI (example Region is us-east-1):**
  - **OSS Nvidia Driver:**

```
aws ec2 describe-images --region us-east-1 \
    --owners amazon \
    --filters 'Name=name,Values=Deep Learning Base OSS Nvidia Driver GPU AMI
 (Ubuntu 20.04) ????????' 'Name=state,Values=available' \
    --query 'reverse(sort_by(Images, &CreationDate))[:1].ImageId' \
    --output text
```

  - **Proprietary Nvidia Driver:**

```
aws ec2 describe-images --region us-east-1 \
    --owners amazon \
    --filters 'Name=name,Values=Deep Learning Base Proprietary Nvidia Driver GPU
 AMI (Ubuntu 20.04) ????????' 'Name=state,Values=available' \
    --query 'reverse(sort_by(Images, &CreationDate))[:1].ImageId' \
    --output text
```

Notices

NVIDIA Container Toolkit 1.17.4

In Container Toolkit version 1.17.4 the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

EFA Updates from 1.37 to 1.38 (Release on 2025-02-04)

EFA now bundles the AWS OFI NCCL plugin, which can now be found in /opt/amazon/ofi-nccl rather than the original /opt/aws-ofi-nccl/. If updating your LD_LIBRARY_PATH variable, please ensure that you modify your OFI NCCL location properly.

Support policy

Components of this AMI like CUDA versions may be removed and changed based on framework support policy or to optimize performance for deep learning containers or to reduce AMI size in a future release , without prior notice. We remove CUDA versions from AMIs if they are not used by any supported framework version.

EC2 instances with multiple network cards

- Many instances types that support EFA also have multiple network cards.
- DeviceIndex is unique to each network card, and must be a non-negative integer less than the limit of ENIs per NetworkCard. On P5, the number of ENIs per NetworkCard is 2, meaning that the only valid values for DeviceIndex is 0 or 1.
  - For the primary network interface (network card index 0, device index 0), create an EFA (EFA with ENA) interface. You can't use an EFA-only network interface as the primary network interface.
  - For each additional network interface, use the next unused network card index, device index 1, and either an EFA (EFA with ENA) or EFA-only network interface, depending on your use case, such as ENA bandwidth requirements or IP address space. For example use cases, see EFA configuration for a P5 instances.
  - For more information, see the EFA Guide here.

P5/P5e instances

- P5 and P5e instances contain 32 network interface cards, and can be launched using the following AWS CLI command:

```
aws ec2 run-instances --region $REGION \
    --instance-type $INSTANCETYPE \
    --image-id $AMI --key-name $KEYNAME \
    --iam-instance-profile "Name=dlami-builder" \
    --tag-specifications "ResourceType=instance,Tags=[{Key=Name,Value=$TAG}]" \
    --network-interfaces "NetworkCardIndex=0,DeviceIndex=0,Groups=$SG,SubnetId=
$SUBNET,InterfaceType=efa" \
```

```
      "NetworkCardIndex=1,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=2,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=3,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=4,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
       ...
      "NetworkCardIndex=31,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
```

P5en instances

- P5en contain 16 network interface cards, and can be launched using the following AWS CLI command:

```
aws ec2 run-instances --region $REGION \
    --instance-type $INSTANCETYPE \
    --image-id $AMI --key-name $KEYNAME \
    --iam-instance-profile "Name=dlami-builder" \
    --tag-specifications "ResourceType=instance,Tags=[{Key=Name,Value=$TAG}]" \
    --network-interfaces "NetworkCardIndex=0,DeviceIndex=0,Groups=$SG,SubnetId=
$SUBNET,InterfaceType=efa" \
      "NetworkCardIndex=1,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=2,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=3,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=4,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
       ...
      "NetworkCardIndex=15,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
```

Kernel

- Kernel version is pinned using command:

```
echo linux-aws hold | sudo dpkg –set-selections
echo linux-headers-aws hold | sudo dpkg –set-selections
echo linux-image-aws hold | sudo dpkg –set-selections
```

- We recommend that users avoid updating their kernel version (unless due to a security patch) to ensure compatibility with installed drivers and package versions. If users still wish to update they can run the following commands to unpin their kernel versions:

```
echo linux-aws install | sudo dpkg -set-selections
echo linux-headers-aws install | sudo dpkg -set-selections
echo linux-image-aws install | sudo dpkg -set-selections
```

- For each new version of DLAMI, latest available compatible kernel is used.

Release Date: 2025-04-24

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20250424
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20250424

Updated

- Upgraded Nvidia driver from version 550.144.03 to 550.163.01 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for April 2025

Release Date: 2025-02-17

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20250214
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20250214

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please

ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-02-04

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20250204
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20250204

Updated

- Upgraded EFA version from 1.37.0 to 1.38.0
  - EFA now bundles the AWS OFI NCCL plugin, which can now be found in /opt/amazon/ofi-nccl rather than the original /opt/aws-ofi-nccl/. If updating your LD_LIBRARY_PATH variable, please ensure that you modify your OFI NCCL location properly.

Removed

- The emacs package has been removed from these DLAMIs. Customers can install emacs from GNU emacs https://www.gnu.org/software/emacs/download.html.

Release Date: 2025-01-17

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20250117
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20250117

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2024-12-09

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20241206
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20241206

Updated

- Upgraded Nvidia Container Toolkit from version 1.17.0 to 1.17.3

Release Date: 2024-11-22

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20241122

Added

- Added support for P5en EC2 Instances.

Updated

- Upgraded EFA Installer from version 1.35.0 to 1.37.0
- Upgrade AWS OFI NCCL Plugin from version 1.12.1-aws to 1.13.0-aws

Release Date: 2024-10-26

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20241025
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20241025

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVEs present in the NVIDIA GPU Display Security Bulletin for October 2024

Release Date: 2024-10-03

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240927

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2

Release Date: 2024-08-27

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240827

Updated

- Upgraded Nvidia driver and Fabric Manager from version 535.183.01 to 550.90.07
- Upgraded EFA Version from 1.32.0 to 1.34.0
- Upgraded NCCL to latest version 2.22.3 for all CUDA versions
  - CUDA 11.7 upgraded from version 2.16.2+CUDA11.7
  - CUDA 12.1, 12.2 upgraded from 2.18.5+CUDA12.2
  - CUDA 12.3 upgraded from version 2.21.5+CUDA12.4

Added

- Added CUDA toolkit version 12.4 in directory /usr/local/cuda-12.4
- Added support for **P5e EC2 Instance**.

Removed

- Removed CUDA Toolkit version 11.8 stack present in directory /usr/local/cuda-11.8

Release Date: 2024-08-19

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240816

Added

- Added support for G6e EC2 instance.

Release Date: 2024-06-06

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240606
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20240606

Updated

- Updated Nvidia driver version to 535.183.01 from 535.161.08

Release Date: 2024-05-15

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240515
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20240515

Added

- Added back CUDA11.7 stack at directory /usr/local/cuda-11.7 with CUDA11.7, NCCL 2.16.2, CuDNN 8.7.0 as PyTorch 1.13 supports CUDA11.7

Release Date: 2024-05-02

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240502
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20240502

Updated

- Updated EFA version from version 1.30 to version 1.32

- Updated AWS OFI NCCL plugin from version 1.7.4 to version 1.9.1
- Updated Nvidia container toolkit from version 1.13.5 to version 1.15.0
  - **Version 1.15.0 does NOT include the nvidia-container-runtime and nvidia-docker2 packages. It is recommended to use nvidia-container-toolkit packages directly by following Nvidia container toolkit docs.**

Added

- Added CUDA12.3 stack with CUDA12.3, NCCL 2.21.5, CuDNN 8.9.7

Removed

- Removed CUDA11.7, CUDA12.0 stacks present at /usr/local/cuda-11.7 and /usr/local/cuda-12.0 directories
- Removed nvidia-docker2 package and its command nvidia-docker as part of Nvidia container toolkit update from 1.13.5 to 1.15.0 which does **NOT** include the nvidia-container-runtime and nvidia-docker2 packages.

Release Date: 2024-04-04

AMI names: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240404

Added

- For OSS Nvidia driver DLAMIs, added G6 and Gr6 EC2 instances support. Please refer to Recommended GPU instances for more information.

Release Date: 2024-03-29

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240326
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20240326

Updated

- Updated Nvidia driver from 535.104.12 to 535.161.08 in both Proprietary and OSS Nvidia driver DLAMIs.
- Removed G4dn, G5 EC2 instances support from Proprietary Nvidia driver DLAMI.
- The new supported instances for each DLAMI are as follows:
  - Deep Learning with Proprietary Nvidia Driver supports G3 (G3.16x not supported), P3, P3dn
  - Deep Learning with OSS Nvidia Driver supports G4dn, G5, P4d, P4de, P5.

Release Date: 2024-03-20

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240318
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20240318

Added

- Added `awscliv2` in the AMI at /usr/local/bin/aws2, alongside `awscliv1` as /usr/bin/aws on Proprietary and OSS Nvidia Driver AMI

Release Date: 2024-03-14

AMI name: Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240314

Updated

- Updated OSS Nvidia driver DLAMI with G4dn and G5 support, based on it current support looks like below:
  - Deep Learning Base Proprietary Nvidia Driver AMI (Ubuntu 20.04) supports P3, P3dn, G3, G5, G4dn.
  - Deep Learning Base OSS Nvidia Driver AMI (Ubuntu 20.04) supports G5, G4dn, P4, P5.
- OSS Nvidia driver DLAMIs are recommended to be used for G5, G4dn, P4, P5.

Release Date: 2024-02-12

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240208
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20240208

Updated

- AWS OFI NCCL plugin is updated from 1.7.3 to 1.7.4

Release Date: 2024-02-01

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20240201
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20240201

Security

- Updated runc package version to consume patch for CVE-2024-21626.

Release Date: 2023-12-04

AMI names

- Deep Learning Base OSS Nvidia Driver GPU AMI (Ubuntu 20.04) 20231204
- Deep Learning Base Proprietary Nvidia Driver GPU AMI (Ubuntu 20.04) 20231204

Added

- AWS Deep Learning AMI (DLAMI) is split into two separate groups:
  - DLAMI that uses Nvidia Proprietary Driver (to support P3, P3dn, G3, G5, G4dn).
  - DLAMI that uses Nvidia OSS Driver to enable EFA (to support P4, P5).
- Please refer to Important changes to DLAMI for more information on the DLAMI split.
- AWS CLI queries for above are under bullet point **Query AMI-ID with AWSCLI (example Region is us-east-1)**

Updated

- EFA updated from 1.26.1 to 1.29.0
- GDRCopy updated from 2.3 to 2.4

Release Date: 2023-10-18

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20231018

Updated

- AWS OFI NCCL Plugin updated from version 1.7.2 to version 1.7.3
- Updated CUDA 12.0-12.1 directories with NCCL version 2.18.5 to match CUDA 12.2
- CUDA12.1 updated as the default CUDA Version
  - Updated LD_LIBRARY_PATH to have /usr/local/cuda-12.1/targets/x86_64-linux/lib/:/usr/local/cuda-12.1/lib:/usr/local/cuda-12.1/lib64:/usr/local/cuda-12.1 and PATH to have /usr/local/cuda-12.1/bin/
  - For customers looking to change to any different CUDA version, please define the LD_LIBRARY_PATH and PATH variables accordingly.

Release Date: 2023-10-02

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20231002

Updated

- NVIDIA Driver updated from 535.54.03 to 535.104.12
  - This latest driver fixes NVML ABI breaking changes found in driver version 535.54.03, as well as the driver regression found in version 535.86.10 that affected CUDA toolkits on P5 instances. Please reference the following NVIDIA release notes for details on the fixes:
  - Please reference the following NVIDIA release notes for details on the fixes:
    - 4235941 - NVML ABI Breaking change fix
    - 4228552 - CUDA Toolkit Error Fix
- Updated CUDA 12.2 directories with NCCL 2.18.5
- EFA updated from version 1.24.1 to latest 1.26.1

Added

- Added CUDA12.2 at /usr/local/cuda-12.2

Removed

- Removed support for CUDA 11.5 and CUDA 11.6

Release Date: 2023-09-26

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20230926

Added

- Added net.naming-scheme changes to fix unpredictable network interface naming issue (link) seen on P5. This change is made by setting net.naming-scheme=v247 in the linux boot arguments in the file /etc/default/grub

Release Date: 2023-08-30

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20230830

Updated

- Updated aws-ofi-nccl plugin from v1.7.1 to v1.7.2

Release Date: 2023-08-11

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20230811

Added

- This AMI now provides support for Multi-node training functionality on P5 and all the previously-supported EC2 instances.
- For P5 EC2 instance, NCCL 2.18 is recommended to be used and has been added to CUDA12.0, and CUDA12.1.

Removed

- Removed support for CUDA11.3 and CUDA11.4.

Release Date: 2023-08-04

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20230804

Updated

- Updated AWS OFI NCCL plugin to v1.7.1
- Made CUDA11.8 as default as PyTorch 2.0 supports 11.8 and for P5 EC2 instance, it is recommended to use >=CUDA11.8
  - Updated LD_LIBRARY_PATH to have /usr/local/cuda-11.8/targets/x86_64-linux/lib/:/usr/local/cuda-11.8/lib:/usr/local/cuda-11.8/lib64:/usr/local/cuda-11.8 and PATH to have /usr/local/cuda-11.8/bin/
  - For any different cuda version, please define LD_LIBRARY_PATH accordingly.
- Updated CUDA 12.0, 12.1 directories with NCCL 2.18.3

Fixed

- Fixed Nvidia Fabric Manager (FM) package load issue mentioned in earlier Release Date 2023-07-19.

Release Date: 2023-07-19

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20230719

Updated

- EFA updated from 1.22.1 to 1.24.1
- Nvidia driver updated from 525.85.12 to 535.54.03

Added

- Added c-state changes to disable idle state of processor by setting the max c-state to C1. This change is made by setting `intel_idle.max_cstate=1 processor.max_cstate=1` in the linux boot arguments in file /etc/default/grub

- AWS EC2 P5 instance support:
  - Added P5 EC2 instance support for workflows using single node/instance. Multi-node support (e.g. for multi-node training) using EFA (Elastic Fabric Adapter) and AWS OFI NCCL plugin will added in an upcoming release.
  - Please use CUDA>=11.8 for optimal performance.
  - Known Issue: Nvidia Fabric Manager (FM) package takes time to load on P5, customers need to wait for 2-3 mins until FM loads after launching P5 instance. To check if FM is started, please run command sudo systemctl is-active nvidia-fabricmanager , it should return active before starting any workflow. This will be improved in upcoming release.

Release Date: 2023-05-19

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20230519

Updated

- EFA updated to latest 1.22.1
- Updated NCCL version for CUDA 12.1 to 2.17.1

Added

- Added CUDA12.1 at /usr/local/cuda-12.1
- Added support for NVIDIA Data Center GPU Monitor (DCGM) through the datacenter-gpu-manager package
  - You can check the status of this service through the following query: sudo systemctl status nvidia-dcgm
- Ephemeral NVMe Instance stores are now automatically mounted to supported EC2 instances and storage can be accessed in the folder /opt/dlami/nvme/. You can check or modify this service in the following ways:
  - Check the status of NVMe service: sudo systemctl status dlami-nvme
  - To access or modify the service: /opt/aws/dlami/bin/nvme_ephemeral_drives.sh
- NVMe volumes provided the fastest and most efficient storage solutions for high throughput workflows that require IOPS performance. Ephemeral NVMe instance stores are included with the cost of the instances, so there is no additional cost incurred with this service.

- NVMe instance stores will only be mounted on EC2 instances that support them. For information on EC2 instances with NVMe supported instance stores, see Available instance store volumes and validate that NVMe is supported.
- To improve disk performance and to reduce first-write penalties, you may initialize the instances stores (note , this process may take hours depending on the EC2 instance type) - Initialize instance store volumes on EC2 instances
- **NOTE**: NVMe instance stores are mounted on the instance and are not attached to the network like EBS. The data on these NVMe volumes may be lost upon reboot or stoppage of your instance.

Release Date: 2023-04-17

AMI name: Deep Learning Base GPU AMI (Ubuntu 20.04) 20230414

Updated

- Updated DLAMI name from AWS Deep Learning Base AMI GPU CUDA 11 (Ubuntu 20.04) ${YYYY-MM-DD} to Deep Learning Base GPU AMI (Ubuntu 20.04) ${YYYY-MM-DD}
  - Please note we will support latest DLAMI with old AMI name for a month from this release for any support needed. Customers are able to update their OS packages apt-get update && apt-get upgrade to consume security patches.
- Updated AWS OFI NCCL plugin path from /usr/local/cuda-xx.x/efa/ to /opt/aws-ofi-nccl/
- Updated NCCL to a custom GIT branch of v2.16.2, co-authored by AWS and NCCL team for all CUDA versions. It performs better on AWS infrastructure.

Added

- Added CUDA12.0 at /usr/local/cuda-12.0
- Added AWS FSx
- Added support for Python version 3.9 in /usr/bin/python3.9
  - Note that this change does not replace the default system Python, python3 will still point the system Python3.8.
  - Python3.9 can be accessed utilizing the following commands:

```
/usr/bin/python3.9
```

```
python3.9
```

Removed

- Removed CUDA11.0-11.1 from /usr/local/cuda-11.x/ as they are not being used by any supported framework versions based on framework support policy.

Release Date: 2022-05-25

AMI name: AWS Deep Learning Base AMI GPU CUDA 11 (Ubuntu 20.04) 20220523

Updated

- This release adds support for new EC2 instance p4de.24xlarge.
  - Updated aws-efa-installer to version 1.15.2
  - Updated aws-ofi-nccl to version 1.3.0-aws which include the topology for p4de.24xlarge.

Release Date: 2022-03-25

AMI name: AWS Deep Learning Base AMI GPU CUDA 11 (Ubuntu 20.04) 20220325

Updated

- Updated EFA version from 1.15.0 to 1.15.1

Release Date: 2022-03-17

AMI name: AWS Deep Learning Base AMI GPU CUDA 11 (Ubuntu 20.04) 20220323

Added

- First release

PyTorch DLAMIs

Release Notes

- AWS Deep Learning AMI GPU PyTorch 2.5 (Ubuntu 22.04)

- AWS Deep Learning AMI GPU PyTorch 2.5 (Amazon Linux 2023)
- AWS Deep Learning ARM64 AMI GPU PyTorch 2.5 (Ubuntu 22.04)
- AWS Deep Learning AMI GPU PyTorch 2.4 (Ubuntu 22.04)
- AWS Deep Learning ARM64 AMI GPU PyTorch 2.4 (Ubuntu 22.04)

AWS Deep Learning AMI GPU PyTorch 2.5 (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.${PATCH_VERSION} (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.5-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.? (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20251108
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20251007
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250930
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250913

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20251108

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.5.1
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.4
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws

Package Name	Version
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.4/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Brotli	1.1.0	1.2.0
amazon-cloudwatch-agent	1.300060.0b1248-1	1.300061.0b1289-1

Package Name	Previous Version	New Version
awscli	2.31.22	2.31.32
awscrt	0.27.6	0.28.4
binutils-common	2.38-4ubuntu2.8	2.38-4ubuntu2.10
binutils-x86-64-linux-gnu	2.38-4ubuntu2.8	2.38-4ubuntu2.10
bokeh	3.8.0	3.8.1
boto3	1.40.59	1.40.69
botocore	1.40.59	1.40.69
cloudpickle	3.1.1	3.1.2
containerd.io	1.7.28-1~ubuntu.22.04~jammy	1.7.29-1~ubuntu.22.04~jammy
dkms	3.2.1-1ubuntu2	3.2.2-1ubuntu1
docker-ce-cli	28.5.1-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.1-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy
docker-compose-plugin	2.40.2-1~ubuntu.22.04~jammy	2.40.3-1~ubuntu.22.04~jammy
fastapi	0.120.0	0.121.0
fsspec	2025.9.0	2025.10.0
graphql-core	3.2.6	3.2.7
gymnasium	1.2.1	1.2.2

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.402	1.0.411
ipykernel	7.0.1	7.1.0
ipywidgets	8.1.7	8.1.8
jupyterlab_widgets	3.0.15	3.0.16
lark	1.3.0	1.3.1
libbinutils	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf-nobfd0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libssh-4	0.9.6-2ubuntu0.22.04.4	0.9.6-2ubuntu0.22.04.5
libxml2	2.9.13+dfsg-1ubuntu0.9	2.9.13+dfsg-1ubuntu0.10
libxnvctrl0	580.95.05-0ubuntu1	580.105.08-0ubuntu1
linux-libc-dev	5.15.0-160.170	5.15.0-161.171
linux-tools-common	5.15.0-160.170	5.15.0-161.171
marshmallow	4.0.1	4.1.0
narwhals	2.9.0	2.10.2
nvlsm	2025.06.6-1	2025.06.10-1
pillow	11.3.0	12.0.0
psutil	7.1.1	7.1.3
pydantic	2.12.3	2.12.4

Package Name	Previous Version	New Version
pydantic_core	2.41.4	2.41.5
regex	2025.10.23	2025.11.3
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.59	1.0.64
scipy	1.16.2	1.16.3
starlette	0.48.0	0.49.3
tblib	3.2.0	3.2.1
tomli	2.0.1	2.3.0
typing_extensions	4.15.0	4.12.2
unicodedata2	16.0.0	17.0.0
webcolors	24.11.1	25.10.0
widgetsnbextension	4.0.14	4.0.15
xyzservices	2025.4.0	2025.10.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.5.1
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.4
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.4/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-extra-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21
nvidia-fabricmanager-580.95.05-1
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
attrs	25.3.0	25.4.0

Package Name	Previous Version	New Version
awscli	2.31.4	2.31.9
boto3	1.40.41	1.40.46
botocore	1.40.41	1.40.46
certifi	2025.8.3	2025.10.5
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
inspectorssmplugin	1.0.398	1.0.399
libnccl-ofi	1.16.2-1	1.16.3-1
libxnvctrl0	580.82.07-0ubuntu1	580.95.05-0ubuntu1
linux-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-image-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1

Package Name	Previous Version	New Version
linux-libc-dev	5.15.0-156.166	5.15.0-157.167
linux-modules-extra-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-tools-common	5.15.0-156.166	5.15.0-157.167
llvmlite	0.45.0	0.45.1
lustre-client-modules-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
narwhals	2.6.0	2.7.0
needrestart	3.5-5ubuntu2.4	3.5-5ubuntu2.5
nltk	3.9.1	3.9.2
nvlsm	2025.06.5-1	2025.06.6-1
platformdirs	4.4.0	4.2.2
pydantic	2.11.9	2.11.10
typing-inspection	0.4.1	0.4.2
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
linux-modules-extra-6.8.0-1039-aws
lustre-client-modules-6.8.0-1039-aws

Package Name
nvidia-fabricmanager-570

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250930

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1039-aws
framework_version	2.5.1
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.4/
nvidia_cuda_stack	/usr/local/cuda-12.4
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2

Package Name	Version
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-extra-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
lustre-client-modules-6.8.0-1039-aws-2.15.6-1fsx21
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.3	1.6.4
MarkupSafe	3.0.2	3.0.3
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
awscli	2.30.1	2.31.4
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.30	1.40.41
botocore	1.40.30	1.40.41
cffi	1.17.1	2.0.0
click	8.2.1	8.3.0
cloud-init	25.1.4-0ubuntu0~22.04.1	25.2-0ubuntu1~22.04.1
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
cryptography	45.0.7	46.0.1
debugpy	1.8.16	1.8.17
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
fastapi	0.116.1	0.118.0
fonttools	4.59.2	4.60.1
gymnasium	1.2.0	1.2.1

Package Name	Previous Version	New Version
inspectorssmplugin	1.0.395	1.0.398
jupyterlab	4.4.7	4.4.9
landscape-common	23.02-0ubuntu1~22.04.4	23.02-0ubuntu1~22.04.6
lark	1.2.2	1.3.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libcpanel-json-xs-perl	4.27-1ubuntu0.1	4.27-1ubuntu0.2
libcurl3-gnutls	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libcurl4	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
libjson-xs-perl	4.030-1build3	4.040-0ubuntu0.22.04.1
libmysqlclient21	8.0.43-0ubuntu0.22.04.1	8.0.43-0ubuntu0.22.04.2
libssl-dev	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libssl3	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libtiff5	4.3.0-6ubuntu0.11	4.3.0-6ubuntu0.12

Package Name	Previous Version	New Version
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-156.166
linux-modules-extra-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-tools-common	5.15.0-153.163	5.15.0-156.166
llvmlite	0.44.0	0.45.0
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
narwhals	2.5.0	2.6.0
nbclassic	1.3.2	1.3.3
numba	0.61.2	0.62.1
open-vm-tools	12.3.5-3~ubuntu0.22.04.2	12.3.5-3~ubuntu0.22.04.3
pandas	2.3.2	2.3.3
prometheus_client	0.22.1	0.23.1
psutil	7.0.0	7.1.0
pydantic	2.9.2	2.11.9

Package Name	Previous Version	New Version
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
regex	2025.9.1	2025.9.18
safety-schemas	0.0.14	0.0.16
sagemaker	2.251.1	2.252.0
starlette	0.47.3	0.48.0
systemd-hwe-hwdb	249.11.5	249.11.6
tomli	2.0.1	2.2.1
typer	0.17.4	0.19.2
typing_extensions	4.15.0	4.12.2
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14
zipp	3.19.2	3.23.0

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1036-aws

Package Name
linux-image-6.8.0-1036-aws
linux-modules-6.8.0-1036-aws
linux-modules-extra-6.8.0-1036-aws
linux-tools-6.8.0-1036-aws
lustre-client-modules-6.8.0-1036-aws

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250913

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1036-aws
framework_version	2.5.1
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.4/
nvidia_cuda_stack	/usr/local/cuda-12.4

Package Name	Version
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
amazon-cloudwatch-agent	1.300057.1b1167-1	1.300059.0b1207-1
awscli	2.28.25	2.30.1

Package Name	Previous Version	New Version
bind9-dnsutils	9.18.30-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.1
bind9-host	9.18.30-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.1
bind9-libs	9.18.30-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.1
boto3	1.40.25	1.40.30
botocore	1.40.25	1.40.30
inspectorssmplugin	1.0.390	1.0.395
jsonschema-specifications	2025.4.1	2025.9.1
libxml2	2.9.13+dfsg-1ubuntu0.8	2.9.13+dfsg-1ubuntu0.9
narwhals	2.3.0	2.5.0
nvidia-ml-py	13.580.65	13.580.82
pyparsing	3.2.3	3.2.4
pyzmq	27.0.2	27.1.0
s3transfer	0.13.1	0.14.0
sagemaker-core	1.0.57	1.0.59
scikit-learn	1.7.1	1.7.2
scipy	1.16.1	1.16.2
tomli	2.0.1	2.2.1

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1035
linux-aws-6.8-tools-6.8.0-1035
linux-headers-6.8.0-1035-aws
linux-image-6.8.0-1035-aws
linux-modules-6.8.0-1035-aws
linux-tools-6.8.0-1035-aws

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-17

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250216

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please

ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-21

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250119

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025.

Release Date: 2024-11-21

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Ubuntu 22.04) 20241121

Added

- Initial release of Deep Learning AMI GPU PyTorch 2.4.1 (Ubuntu 22.04) series. Including a conda environment pytorch complimented with NVIDIA Driver R550, CUDA=12.4.1, cuDNN=8.9.7, PyTorch NCCL=2.21.5, and EFA=1.37.0.

Fixed

- Due to a change in the Ubuntu kernel to address a defects in the Kernel Address Space Layout Randomization (KASLR) functionality, G4Dn/G5 instances are unable to properly initialize CUDA on the OSS Nvidia driver. In order to mitigate this issue, this DLAMI includes functionality that dynamically loads the proprietary driver for G4Dn and G5 instances. Please allow a brief initialization period for this loading in order to ensure that your instances are able to work properly.
  - To check the status and health of this service, you can use the following commands:

```
sudo systemctl is-active dynamic_driver_load.service
```

```
active
```

AWS Deep Learning AMI GPU PyTorch 2.5 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.${PATCH_VERSION} (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.5-amazon-linux-2023/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.? (Amazon
 Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20251101
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20251007
- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20250927

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20251101

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.5.1
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.4
ssm_agent_version	3.3.3050.0
kernel_version	6.1.156-177.286.amzn2023.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3

Package Name	Version
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.4/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

apr-util-lmdb-1.6.3-1.amzn2023.0.2
kernel-livepatch-6.1.156-177.286-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
Brotli	1.1.0	1.2.0
amazon-linux-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2

Package Name	Previous Version	New Version
audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
audit-libs	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
awscli	2.31.22	2.31.27
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.59	1.40.64
botocore	1.40.59	1.40.64
fastapi	0.120.0	0.120.4
fsspec	2025.9.0	2025.10.0
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
grub2-common	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-efi-x64-ec2	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-pc-modules	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20

Package Name	Previous Version	New Version
grub2-tools-minimal	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
inspectorssmplugin	1.0.402-1	1.0.404-1
ipykernel	7.0.1	7.1.0
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1
kernel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-devel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-headers	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-libbpf	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-livepatch-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
kernel-modules-extra	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-modules-extra-common	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-tools	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
lark	1.3.0	1.3.1
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6

Package Name	Previous Version	New Version
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
marshmallow	4.0.1	4.1.0
narwhals	2.9.0	2.10.1
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1
pillow	11.3.0	12.0.0
platformdirs	4.2.2	4.5.0
psutil	7.1.1	7.1.2
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6

Package Name	Previous Version	New Version
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
runc	1.3.1-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.59	1.0.61
scipy	1.16.2	1.16.3
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.48.0	0.49.3
system-release	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
tblib	3.2.0	3.2.1
termcolor	3.1.0	3.2.0
typing_extensions	4.15.0	4.12.2
webcolors	24.11.1	25.10.0
xyzservices	2025.4.0	2025.10.0
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-6.1.155-176.282

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.5.1
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.4
ssm_agent_version	3.3.3050.0

Package Name	Version
kernel_version	6.1.153-175.280.amzn2023.x86_64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.4/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-6.1.153-175.280-1.0-0.amzn2023
nvidia-fabricmanager-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5

Package Name	Previous Version	New Version
MarkupSafe	3.0.2	3.0.3
amazon-linux-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
amazon-rpm-config	228-9.amzn2023.0.1	228-10.amzn2023.0.1
amazon-ssm-agent	3.3.2299.0-1.amzn2023	3.3.3050.0-1.amzn2023
attrs	25.3.0	25.4.0
awscli	2.31.3	2.31.9
beautifulsoup4	4.13.5	4.14.2
binutils	2.41-50.amzn2023.0.3	2.41-50.amzn2023.0.4
boto3	1.40.40	1.40.46
botocore	1.40.40	1.40.46
certifi	2025.8.3	2025.10.5
container-selinux	2.233.0-1.amzn2023	2.242.0-1.amzn2023
coreutils	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
coreutils-common	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
cpp14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
cryptography	46.0.1	46.0.2
cups-filesystem	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1

Package Name	Previous Version	New Version
cups-libs	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
dnf-plugin-support-info	1.7-1.amzn2023	1.8-1.amzn2023
efa	2.17.2-1.amzn2023	2.17.3-1.amzn2023
expat	2.6.3-1.amzn2023.0.2	2.6.3-1.amzn2023.0.3
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
gcc14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
inspectorssmplugin	1.0.398-1	1.0.399-1
kernel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-devel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-headers	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-libbpf	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-livepatch-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
kernel-modules-extra	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023

Package Name	Previous Version	New Version
kernel-modules-extra-common	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-tools	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
libatomic	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgcc	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgccjit	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgfortran	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgomp	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libnccl-ofi	1.16.2-1.amzn2023	1.16.3-1.amzn2023
libquadmath	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libstdc++	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
llvmlite	0.45.0	0.45.1
microcode_ctl	2.1-53.amzn2023.0.13	2.1-53.amzn2023.0.14
narwhals	2.5.0	2.7.0
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1

Package Name	Previous Version	New Version
nvlsm	2025.06.5-1	2025.06.6-1
openjpeg2	2.4.0-11.amzn2023.0.6	2.5.2-5.amzn2023.0.1
pandas	2.3.2	2.3.3
platformdirs	4.4.0	4.2.2
pydantic	2.11.9	2.11.10
python3-awscrt	0.26.1-1.amzn2023.0.1	0.27.6-1.amzn2023.0.1
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.3	1.90.0-1.amzn2023.0.1
sagemaker	2.251.1	2.252.0
selinux-policy	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
selinux-policy-targeted	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
system-release	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
tomli	2.2.1	2.0.1
typing-inspection	0.4.1	0.4.2
typing_extensions	4.15.0	4.12.2
zipp	3.19.2	3.23.0

Removed Packages

Package Name
kernel-livepatch-6.1.150-174.273
nvidia-fabric-manager

Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20250927

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.8.20250915
compute_architecture	x86_64
kernel_version	6.1.150-174.273.amzn2023.x86_64
framework_version	2.5.1
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.4/
nvidia_cuda_stack	/usr/local/cuda-12.4
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.17.8

Package Name	Version
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
kernel-livepatch-6.1.150-174.273-1.0-0.amzn2023
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.3	1.6.4
PyYAML	6.0.2	6.0.3
amazon-linux-repo-s3	2023.8.20250908-0.amzn2023	2023.8.20250915-0.amzn2023
anyio	4.10.0	4.11.0

Package Name	Previous Version	New Version
awscli	2.30.1	2.31.3
boto3	1.40.30	1.40.40
botocore	1.40.30	1.40.40
cffi	1.17.1	2.0.0
click	8.2.1	8.3.0
containerd	2.0.5-1.amzn2023.0.2	2.0.6-1.amzn2023.0.1
cryptography	45.0.7	46.0.1
debugpy	1.8.16	1.8.17
docker	25.0.8-1.amzn2023.0.5	25.0.8-1.amzn2023.0.6
fastapi	0.116.1	0.117.1
fonttools	4.59.2	4.60.0
glibc	2.34-196.amzn2023.0.1	2.34-231.amzn2023.0.1
glibc-all-langpacks	2.34-196.amzn2023.0.1	2.34-231.amzn2023.0.1
glibc-common	2.34-196.amzn2023.0.1	2.34-231.amzn2023.0.1
glibc-devel	2.34-196.amzn2023.0.1	2.34-231.amzn2023.0.1
glibc-gconv-extra	2.34-196.amzn2023.0.1	2.34-231.amzn2023.0.1

Package Name	Previous Version	New Version
glibc-headers-x86	2.34-196.amzn2023.0.1	2.34-231.amzn2023.0.1
glibc-locale-source	2.34-196.amzn2023.0.1	2.34-231.amzn2023.0.1
gstreamer1-plugins-base	1.24.10-1.amzn2023.0.1	1.24.10-1.amzn2023.0.2
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.395-1	1.0.398-1
jupyterlab	4.4.7	4.4.9
kernel	6.1.148-173.267.amzn2023	6.1.150-174.273.amzn2023
kernel-devel	6.1.148-173.267.amzn2023	6.1.150-174.273.amzn2023
kernel-headers	6.1.148-173.267.amzn2023	6.1.150-174.273.amzn2023
kernel-libbpf	6.1.148-173.267.amzn2023	6.1.150-174.273.amzn2023
kernel-livepatch-repo-s3	2023.8.20250908-0.amzn2023	2023.8.20250915-0.amzn2023
kernel-modules-extra	6.1.148-173.267.amzn2023	6.1.150-174.273.amzn2023
kernel-modules-extra-common	6.1.148-173.267.amzn2023	6.1.150-174.273.amzn2023
kernel-tools	6.1.148-173.267.amzn2023	6.1.150-174.273.amzn2023

Package Name	Previous Version	New Version
lark	1.2.2	1.3.0
libtiff	4.4.0-4.amzn2023.0.21	4.4.0-4.amzn2023.0.22
libunwind	1.4.0-5.amzn2023.0.2	1.4.0-5.amzn2023.0.3
llvmlite	0.44.0	0.45.0
lustre-client	2.15.6-19.amzn2023	2.15.6-21.amzn2023
nbclassic	1.3.2	1.3.3
numba	0.61.2	0.62.0
prometheus_client	0.22.1	0.23.1
psutil	7.0.0	7.1.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
regex	2025.9.1	2025.9.18
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.2	1.89.0-1.amzn2023.0.3
safety-schemas	0.0.14	0.0.16
starlette	0.47.3	0.48.0
system-release	2023.8.20250908-0.amzn2023	2023.8.20250915-0.amzn2023
typer	0.17.4	0.19.2

Package Name	Previous Version	New Version
typing_extensions	4.15.0	4.12.2
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14
zipp	3.23.0	3.19.2

Removed Packages

Package Name
kernel-livepatch-6.1.148-173.267

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-17

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20250216

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-08

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20250107

Added

- Added Support for G4dn instances.

Release Date: 2024-11-21

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5.1 (Amazon Linux 2023) 20241120

Added

- Initial release of the Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.5 for Amazon Linux 2023

Known Issues

- This DLAMI does not support G4dn and G5 EC2 instances at this time. AWS is aware of an incompatibility that may result in CUDA initialization failures, affecting both G4dn and G5 instance families when using the open source NVIDIA drivers together with a Linux kernel version 6.1 or newer. This issue affects Linux distributions such as Amazon Linux 2023, Ubuntu 22.04 or newer, or SUSE Linux Enterprise Server 15 SP6 or newer, among others.

AWS Deep Learning ARM64 AMI GPU PyTorch 2.5 (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.${PATCH_VERSION} (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-pytorch-2.5-ubuntu-22.04/latest/ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/arm64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.? (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20251031
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20251003
- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250926

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20251031

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.5.1
supported_ec2_instances	G5g
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.4
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.4/
compute_architecture	aarch64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Brotli	1.1.0	1.2.0
awscli	1.42.58	1.42.63
binutils-aarch64-linux-gnu	2.38-4ubuntu2.8	2.38-4ubuntu2.10
binutils-common	2.38-4ubuntu2.8	2.38-4ubuntu2.10
boto3	1.40.58	1.40.63
botocore	1.40.58	1.40.63
docker-compose-plugin	2.40.2-1~ubuntu.22.04~jammy	2.40.3-1~ubuntu.22.04~jammy
fastapi	0.120.0	0.120.3
fsspec	2025.9.0	2025.10.0
inspectorssmplugin	1.0.402	1.0.404
ipykernel	7.0.1	7.1.0
lark	1.3.0	1.3.1
libbinutils	2.38-4ubuntu2.8	2.38-4ubuntu2.10

Package Name	Previous Version	New Version
libctf-nobfd0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libctf0	2.38-4ubuntu2.8	2.38-4ubuntu2.10
libssh-4	0.9.6-2ubuntu0.22.04.4	0.9.6-2ubuntu0.22.04.5
libxml2	2.9.13+dfsg-1ubuntu0.9	2.9.13+dfsg-1ubuntu0.10
linux-libc-dev	5.15.0-160.170	5.15.0-161.171
linux-tools-common	5.15.0-160.170	5.15.0-161.171
narwhals	2.9.0	2.10.1
pillow	11.3.0	12.0.0
psutil	7.1.1	7.1.2
sagemaker	2.253.1	2.254.1
sagemaker-core	1.0.59	1.0.61
scipy	1.16.2	1.16.3
starlette	0.48.0	0.49.1
tblib	3.2.0	3.2.1
termcolor	3.1.0	3.2.0
tomli	2.0.1	2.3.0
typing_extensions	4.15.0	4.12.2
webcolors	24.11.1	25.10.0
xyzservices	2025.4.0	2025.10.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20251003

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.5.1
supported_ec2_instances	G5g
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_cuda_stack	/usr/local/cuda-12.4
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1039-aws
nvidia_container_toolkit_version	1.17.8
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.4/
compute_architecture	aarch64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
awscli	1.42.39	1.42.44
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.39	1.40.44
botocore	1.40.39	1.40.44
cloud-init	25.1.4-0ubuntu0~22.04.1	25.2-0ubuntu1~22.04.1
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-ce-cli	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
inspectorssmplugin	1.0.398	1.0.399
jupyterlab	4.4.8	4.4.9
libcurl3-gnutls	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libcurl4	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libssl-dev	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libssl3	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libtiff5	4.3.0-6ubuntu0.11	4.3.0-6ubuntu0.12
linux-libc-dev	5.15.0-156.166	5.15.0-157.167
linux-tools-common	5.15.0-156.166	5.15.0-157.167
llvmlite	0.45.0	0.45.1
narwhals	2.5.0	2.6.0
needrestart	3.5-5ubuntu2.4	3.5-5ubuntu2.5
nltk	3.9.1	3.9.2
numba	0.62.0	0.62.1

Package Name	Previous Version	New Version
open-vm-tools	12.3.5-3~ubuntu0.22.04.2	12.3.5-3~ubuntu0.22.04.3
pandas	2.3.2	2.3.3
sagemaker	2.251.1	2.252.0
tomli	2.2.1	2.0.1
typing-inspection	0.4.1	0.4.2
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250926

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G5g
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	aarch64
kernel_version	6.8.0-1039-aws
framework_version	2.5.1
python_location	/opt/conda/envs/pytorch/bin/python
nvidia_driver	570.172.08

Package Name	Version
default_cuda	/usr/local/cuda-12.4/
nvidia_cuda_stack	/usr/local/cuda-12.4
nvidia_container_toolkit_version	1.17.8
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
lustre-client-modules-6.8.0-1039-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
awscli	1.42.34	1.42.39
boto3	1.40.34	1.40.39
botocore	1.40.34	1.40.39
cffi	1.17.1	2.0.0
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
fastapi	0.116.2	0.117.1
grpcio	1.75.0	1.75.1
grpcio-tools	1.75.0	1.75.1
gymnasium	1.2.0	1.2.1
inspectorssmplugin	1.0.396	1.0.398
jupyterlab	4.4.7	4.4.8
lark	1.2.2	1.3.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11

Package Name	Previous Version	New Version
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-156.166
linux-tools-common	5.15.0-153.163	5.15.0-156.166
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
platformdirs	4.4.0	4.2.2
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
python3-pip-whl	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16

Package Name	Previous Version	New Version
typer	0.17.4	0.19.2
uvicorn	0.35.0	0.37.0
wcwidth	0.2.13	0.2.14

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1036-aws
linux-image-6.8.0-1036-aws
linux-modules-6.8.0-1036-aws
linux-tools-6.8.0-1036-aws
lustre-client-modules-6.8.0-1036-aws

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-17

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250215

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-21

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20250117

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025.

Release Date: 2024-11-22

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) 20241122

Added

- Initial release of Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.5.1 (Ubuntu 22.04) series. Including a conda environment pytorch complimented with NVIDIA Driver R550, CUDA=12.4, cuDNN=8.9.7, PyTorch NCCL=2.21.5.

AWS Deep Learning AMI GPU PyTorch 2.4 (Ubuntu 22.04)

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.4.${PATCH_VERSION} (Ubuntu 22.04) ${YYYY-MM-DD}

Supported EC2 instances

- Please refer to Important changes to DLAMI .
- Deep Learning with OSS Nvidia Driver supports G4dn, G5, G6, Gr6, P4, P4de, P5, P5e, P5en.

The AMI includes the following:

- **Supported AWS Service**: EC2
- **Operating System**: Ubuntu 22.04
- **Compute Architecture**: x86
- **Python**: /opt/conda/envs/pytorch/bin/python
- **NVIDIA Driver**:
  - OSS Nvidia driver: 550.144.03
- **NVIDIA CUDA12.1 stack**:
  - CUDA, NCCL and cuDDN installation path: /usr/local/cuda-12.4/
  - **Default CUDA:** 12.4
    - PATH /usr/local/cuda points to /usr/local/cuda-12.4/
    - Updated below env vars:
      - LD_LIBRARY_PATH to have /usr/local/cuda/lib:/usr/local/cuda/lib64:/usr/local/cuda:/usr/local/cuda/targets/x86_64-linux/lib
      - PATH to have /usr/local/cuda/bin/:/usr/local/cuda/include/
  - Compiled system NCCL Version present at /usr/local/cuda/: 2.21.5
  - PyTorch Compiled NCCL Version from PyTorch conda environment: 2.20.5
- **NCCL Tests Location:**
  - all_reduce, all_gather and reduce_scatter: /usr/local/cuda-xx.x/efa/test-cuda-xx.x/

  - To run NCCL tests, LD_LIBRARY_PATH is already with updated with needed paths.
    - Common PATHs are already added to LD_LIBRARY_PATH:
      - /opt/amazon/efa/lib:/opt/amazon/openmpi/lib:/opt/aws-ofi-nccl/lib:/usr/local/lib:/usr/lib
  - LD_LIBRARY_PATH is updated with CUDA version paths
    - /usr/local/cuda/lib:/usr/local/cuda/lib64:/usr/local/cuda:/usr/local/cud/targets/x86_64-linux/lib
- **EFA Installer**: 1.34.0
- **Nvidia GDRCopy:** 2.4.1
- **Nvidia Transformer Engine:** v1.11.0
- **AWS OFI NCCL plugin**: is installed as part of the EFA Installer-aws
  - **Installation path:** /opt/aws-ofi-nccl/ . Path /opt/aws-ofi-nccl/lib is added to LD_LIBRARY_PATH.
  - **Tests path** for ring, message_transfer: /opt/aws-ofi-nccl/tests
  - Note: PyTorch package comes with dynamically linked AWS OFI NCCL plugin as a conda package aws-ofi-nccl-dlc package as well and PyTorch will use that package instead of system AWS OFI NCCL.
- **AWS CLI v2** as aws2 and **AWS CLI v1** as aws
- **EBS volume type**: gp3
- **Python version:** 3.11
- **Query AMI-ID with SSM Parameter (example Region is us-east-1):**
  - **OSS Nvidia Driver:**

```
aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/oss-nvidia-driver-gpu-
pytorch-2.4-ubuntu-22.04/latest/ami-id \
        --query "Parameter.Value" \
        --output text
```

- **Query AMI-ID with AWSCLI (example Region is us-east-1):**
  - **OSS Nvidia Driver:**

```
aws ec2 describe-images --region us-east-1 \
    --owners amazon \
```

```
    --filters 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU PyTorch
 2.4.? (Ubuntu 22.04) ????????' 'Name=state,Values=available' \
    --query 'reverse(sort_by(Images, &CreationDate))[:1].ImageId' \
    --output text
```

Notices

P5/P5e instances

- DeviceIndex is unique to each NetworkCard, and must be a non-negative integer less than the limit of ENIs per NetworkCard. On P5, the number of ENIs per NetworkCard is 2, meaning that the only valid values for DeviceIndex is 0 or 1. Below is the example of EC2 P5 instance launch command using awscli showing NetworkCardIndex from number 0-31 and DeviceIndex as 0 for first interface and DeviceIndex as 1 for rest 31 interrfaces.

```
aws ec2 run-instances --region $REGION \
    --instance-type $INSTANCETYPE \
    --image-id $AMI --key-name $KEYNAME \
    --iam-instance-profile "Name=dlami-builder" \
    --tag-specifications "ResourceType=instance,Tags=[{Key=Name,Value=$TAG}]" \
    --network-interfaces "NetworkCardIndex=0,DeviceIndex=0,Groups=$SG,SubnetId=
$SUBNET,InterfaceType=efa" \
      "NetworkCardIndex=1,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=2,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=3,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      "NetworkCardIndex=4,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
 \
      ...
      "NetworkCardIndex=31,DeviceIndex=1,Groups=$SG,SubnetId=$SUBNET,InterfaceType=efa"
```

Release Date: 2025-02-17

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.4.1 (Ubuntu 22.04) 20250216

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4

- Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
- In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Release Date: 2025-01-21

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.4.1 (Ubuntu 22.04) 20250119

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVE's present in the NVIDIA GPU Display Driver Security Bulletin for January 2025.

Release Date: 2024-11-18

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.4.1 (Ubuntu 22.04) 20241116

Fixed

- Due to a change in the Ubuntu kernel to address a defects in the Kernel Address Space Layout Randomization (KASLR) functionality, G4Dn/G5 instances are unable to properly initialize CUDA on the OSS Nvidia driver. In order to mitigate this issue, this DLAMI includes functionality that dynamically loads the proprietary driver for G4Dn and G5 instances. Please allow a brief initialization period for this loading in order to ensure that your instances are able to work properly.
  - To check the status and health of this service, you can use the following commands:

```
sudo systemctl is-active dynamic_driver_load.service active
```

Release Date: 2024-10-16

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.4.1 (Ubuntu 22.04) 20241016

Added

- Added Nvidia TransformerEngine v1.11.0 for accelerating Transformer models (For more details, please refer to https://docs.nvidia.com/deeplearning/transformer-engine/user-guide/index.html)

Release Date: 2024-09-30

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.4.1 (Ubuntu 22.04) 20240929

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2, addressing the security vulnerability CVE-2024-0133.

Release Date: 2024-09-26

AMI name: Deep Learning OSS Nvidia Driver AMI GPU PyTorch 2.4.1 (Ubuntu 22.04) 20240925

Added

- Initial release of Deep Learning AMI GPU PyTorch 2.4.1 (Ubuntu 22.04) series. Including a conda environment pytorch complimented with NVIDIA Driver R550, CUDA=12.4.1, cuDNN=8.9.7, PyTorch NCCL=2.20.5, and EFA=1.34.0.

AWS Deep Learning ARM64 AMI GPU PyTorch 2.4 (Ubuntu 22.04)

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.4.${PATCH_VERSION} (Ubuntu 22.04) ${YYYY-MM-DD}

Supported EC2 instances

- G5g

The AMI includes the following:

- **Supported AWS Service**: Amazon EC2
- **Operating System**: Ubuntu 22.04
- **Compute Architecture**: ARM64
- **Python**: /opt/conda/envs/pytorch/bin/python
- **Python version:** 3.11
- **NVIDIA Driver**:
  - OSS Nvidia driver: 550.144.03
- **NVIDIA CUDA12.1 stack**:
  - CUDA, NCCL and cuDDN installation path: /usr/local/cuda-12.4/
  - **Default CUDA:** 12.4
    - PATH /usr/local/cuda points to /usr/local/cuda-12.4/
    - Updated below env vars:
      - LD_LIBRARY_PATH to have /usr/local/cuda/lib:/usr/local/cuda/lib64:/usr/local/cuda:/usr/local/cuda/targets/sbsa-linux/lib:/usr/local/cuda/nvvm/lib64:/usr/local/cuda/extras/CUPTI/lib64
      - PATH to have /usr/local/cuda/bin/:/usr/local/cuda/include/
  - Compiled system NCCL Version present at /usr/local/cuda/: 2.21.5
  - PyTorch Compiled NCCL Version from PyTorch conda environment: 2.20.5
- **AWS CLI v2** as aws2 and **AWS CLI v1** as aws
- **EBS volume type**: gp3
- **Query AMI-ID with SSM Parameter (example Region is us-east-1):**

```
aws ssm get-parameter --region us-east-1 \
    --name /aws/service/deeplearning/ami/arm64/oss-nvidia-driver-gpu-pytorch-2.4-ubuntu-22.04/latest/ami-id  \
    --query "Parameter.Value" \
    --output text
```

- **Query AMI-ID with AWSCLI (example Region is us-east-1):**

```
aws ec2 describe-images --region us-east-1 \
    --owners amazon \
```

```
    --filters 'Name=name,Values=Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch
2.4.? (Ubuntu 22.04) ????????' 'Name=state,Values=available' \
    --query 'reverse(sort_by(Images, &CreationDate))[:1].ImageId' \
    --output text
```

Release Date: 2025-02-17

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.4.0 (Ubuntu 22.04) 20250215

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-21

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.4.0 (Ubuntu 22.04) 20250117

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025.

Release Date: 2024-09-30

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.4.0 (Ubuntu 22.04) 20240927

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2, addressing the security vulnerability CVE-2024-0133.

Release Date: 2024-09-26

AMI name: Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.4.0 (Ubuntu 22.04) 20240926

Added

- Initial release of Deep Learning ARM64 AMI OSS Nvidia Driver GPU PyTorch 2.4.0 (Ubuntu 22.04) series. Including a conda environment pytorch complimented with NVIDIA Driver R550, CUDA=12.4, cuDNN=8.9.7, PyTorch NCCL=2.20.5.

TensorFlow DLAMIs

Release Notes

- Deep Learning AMI GPU TensorFlow 2.18 (Amazon Linux 2023)
- Deep Learning AMI GPU TensorFlow 2.18 (Ubuntu 22.04)
- Deep Learning AMI GPU TensorFlow 2.17 (Ubuntu 22.04)
- AWS Deep Learning AMI GPU TensorFlow 2.16 (Amazon Linux 2)
- AWS Deep Learning AMI GPU TensorFlow 2.16 (Ubuntu 20.04)

Deep Learning AMI GPU TensorFlow 2.18 (Amazon Linux 2023)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- TensorFlow 2.18 is the final TensorFlow version supported for DLAMI. For future framework DLAMIs, please consider using PyTorch DLAMIs.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-tensorflow-2.18-amazon-linux-2023/latest/
ami-id && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon
 Linux 2023) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20260103

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251227
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251209
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251115
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251103
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251007
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20250927

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.5
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3

ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Markdown	3.10	3.10.1
SQLAlchemy	2.0.45	2.0.46
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
importlib_metadata	8.0.0	8.7.1
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
jmespath	1.0.1	1.1.0
nvidia-fabricmanager	580.105.08-1	580.126.09-1

Package Name	Previous Version	New Version
nvidia-ml-py	13.590.44	13.590.48
packaging	25.0	26.0
pandas	2.3.3	3.0.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
setuptools	80.9.0	80.10.1
tomli	2.0.1	2.4.0
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.14	0.3.0
wheel	0.45.1	0.46.3
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
pytz
typeguard

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.5
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact

our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
black	25.12.0	26.1.0
boto3	1.42.30	1.42.31
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
platformdirs	4.2.2	4.5.1
pytokens	0.3.0	0.4.0
soupsieve	2.8.1	2.8.3

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en

operating_system	Amazon Linux 2023.10.20260105
compute_architecture	x86_64
kernel_version	6.1.159-181.297.amzn2023.x86_64
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.5
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3572.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
dask	2025.12.0	2026.1.1
inspectorssmplugin	1.0.432-1	1.0.434-1
jaraco.context	5.3.0	6.1.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
keras	3.13.0	3.13.1
librt	0.7.7	0.7.8
notebook	7.5.1	7.5.2
packaging	25.0	24.2
plotly	6.5.1	6.5.2
prometheus_client	0.23.1	0.24.1
regex	2025.11.3	2026.1.15
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20260103

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.5
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
boto3	1.42.17	1.42.21
botocore	1.42.17	1.42.21
celery	5.6.0	5.6.1
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430-1	1.0.431-1
json5	0.12.1	0.13.0
kombu	5.6.1	5.6.2
librt	0.7.5	0.7.7
pillow	12.0.0	12.1.0

Package Name	Previous Version	New Version
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0

Removed Packages

Package Name
exceptiongroup
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.9.20251208
compute_architecture	x86_64
kernel_version	6.1.158-180.294.amzn2023.x86_64
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.5

gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
boto3	1.42.9	1.42.17
botocore	1.42.9	1.42.17
debugpy	1.8.18	1.8.19
docutils	0.22.3	0.22.4

Package Name	Previous Version	New Version
fastapi	0.124.4	0.127.1
filelock	3.20.0	3.20.1
flatbuffers	25.9.23	25.12.19
inspectorssmplugin	1.0.428-1	1.0.430-1
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.3.0	4.4.0
joblib	1.5.2	1.5.3
jupyterlab	4.5.0	4.5.1
keras	3.12.0	3.13.0
librt	0.7.3	0.7.5
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
mypy	1.19.0	1.19.1
narwhals	2.13.0	2.14.0
nbclient	0.10.2	0.10.4
notebook	7.5.0	7.5.1
packaging	24.2	25.0
pipenv	2026.0.2	2026.0.3
platformdirs	4.5.1	4.2.2
psutil	7.1.3	7.2.0

Package Name	Previous Version	New Version
pyparsing	3.2.5	3.3.1
ruamel.yaml	0.18.16	0.18.17
soupsieve	2.8	2.8.1
tornado	6.5.3	6.5.4
typer	0.20.0	0.21.0
typing_extensions	4.15.0	4.12.2

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251209

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.9.20251117
compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.5/

nvidia_cuda_stack	/usr/local/cuda-12.5
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

exceptiongroup-1.3.1
tzlocal-5.3.1

Updated Packages

Package Name	Previous Version	New Version
beautifulsoup4	4.14.2	4.14.3

Package Name	Previous Version	New Version
billiard	4.2.3	4.2.4
black	25.11.0	25.12.0
boto3	1.41.5	1.42.5
botocore	1.41.5	1.42.5
celery	5.5.3	5.6.0
fastapi	0.122.0	0.124.0
fsspec	2025.10.0	2025.12.0
gast	0.6.0	0.7.0
greenlet	3.2.4	3.3.0
inspectorssmplugin	1.0.419-1	1.0.423-1
ipython	9.7.0	9.8.0
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.3.0	4.0.1
kombu	5.5.4	5.6.1
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
librt	0.6.2	0.7.3
marshmallow	4.1.0	4.1.1
more-itertools	10.8.0	10.3.0
narwhals	2.12.0	2.13.0

Package Name	Previous Version	New Version
nvidia-container-toolkit	1.18.0-1	1.18.1-1
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1
nvidia-fabricmanager	580.95.05-1	580.105.08-1
nvidia-ml-py	13.580.82	13.590.44
pipenv	2025.0.4	2025.1.1
platformdirs	4.5.0	4.5.1
pylint	4.0.3	4.0.4
pytest	9.0.1	9.0.2
rpds-py	0.29.0	0.30.0
s3transfer	0.15.0	0.16.0
urllib3	2.5.0	2.6.1

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251115

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.9.20251110

compute_architecture	x86_64
kernel_version	6.1.158-178.288.amzn2023.x86_64
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.5/
nvidia_cuda_stack	/usr/local/cuda-12.5
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.18.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
ebs_volume_type	gp3
ssm_agent_version	3.3.3050.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

ImageIO-2.37.2
kernel-livepatch-6.1.158-178.288-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
SecretStorage	3.4.0	3.4.1
amazon-cloudwatch-agent	1.300059.1-1.amzn2023	1.300060.1-1.amzn2023
amazon-linux-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
annotated-doc	0.0.3	0.0.4
astroid	4.0.1	4.0.2
bind-libs	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-license	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
bind-utils	9.18.33-1.amzn2023.0.3	9.18.33-1.amzn2023.0.4
black	25.9.0	25.11.0
bokeh	3.8.0	3.8.1
boto3	1.40.65	1.40.74
botocore	1.40.65	1.40.74

Package Name	Previous Version	New Version
certifi	2025.10.5	2025.11.12
containerd	2.1.4-1.amzn2023.0.1	2.1.4-1.amzn2023.0.2
dask	2025.10.0	2025.11.0
dkms	3.2.1-182.amzn2023	3.3.0-183.amzn2023
dnf-plugin-support-info	1.8-1.amzn2023	1.9-1.amzn2023
docker	25.0.13-1.amzn2023.0.1	25.0.13-1.amzn2023.0.2
docutils	0.22.2	0.22.3
dwz	0.14-6.amzn2023.0.2	0.16-2.amzn2023.0.1
fastapi	0.121.0	0.121.2
ibacm	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
infiniband-diags	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
infiniband-diags-compat	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
inspectorssmplugin	1.0.405-1	1.0.412-1
ipython	9.6.0	9.7.0
jaraco.functools	4.0.1	4.3.0
kernel	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-devel	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023

Package Name	Previous Version	New Version
kernel-headers	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-libbpf	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-livepatch-repo-s3	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
kernel-modules-extra	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-modules-extra-common	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
kernel-tools	6.1.156-177.286.amzn2023	6.1.158-178.288.amzn2023
libcap	2.73-1.amzn2023.0.3	2.73-1.amzn2023.0.4
libfabric-aws	2.1.0amzn5.0-1.amzn2023	2.3.1amzn1.0-1.amzn2023
libfabric-aws-devel	2.1.0amzn5.0-1.amzn2023	2.3.1amzn1.0-1.amzn2023
libibumad	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libibverbs	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libibverbs-utils	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
libnccl-ofi	1.16.3-1.amzn2023	1.17.1-1.amzn2023
librdmacm	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
librdmacm-utils	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023

Package Name	Previous Version	New Version
libssh	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-config	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
libssh-devel	0.10.6-1.amzn2023.0.2	0.10.6-1.amzn2023.0.3
lustre-client	2.15.6-21.amzn2023	2.15.6-23.amzn2023
lz4-libs	1.9.4-1.amzn2023.0.2	1.9.4-1.amzn2023.0.3
more-itertools	10.8.0	10.3.0
narwhals	2.10.1	2.11.0
openmpi50-aws	5.0.6-11	5.0.8amzn1-11
optree	0.17.0	0.18.0
pam	1.5.1-8.amzn2023.0.6	1.5.1-8.amzn2023.0.7
pip-tools	7.5.1	7.5.2
pipdeptree	2.29.0	2.30.0
plotly	6.3.1	6.4.0
pydantic	2.12.3	2.9.2
pydantic_core	2.41.4	2.23.4
pylint	4.0.2	4.0.3
pytest	8.4.2	9.0.1
python3	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4

Package Name	Previous Version	New Version
python3-libs	3.9.24-1.amzn2023.0.3	3.9.24-1.amzn2023.0.4
python3-pyverbs	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
pytokens	0.2.0	0.3.0
rdma-core	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
rdma-core-devel	58.amzn0-1.amzn2023	59.amzn0-1.amzn2023
runc	1.3.2-2.amzn2023.0.1	1.3.3-2.amzn2023.0.1
safety-schemas	0.0.16	0.0.14
system-release	2023.9.20251027-0.amzn2023	2023.9.20251110-0.amzn2023
typing_extensions	4.12.2	4.15.0
wrapt	2.0.0	2.0.1
zope.interface	8.0.1	8.1

Removed Packages

Package Name
imageio
kernel-livepatch-6.1.156-177.286

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251103

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.18
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/tensorflow/bin/python3
nvidia_cuda_stack	/usr/local/cuda-12.5
ssm_agent_version	3.3.3050.0
kernel_version	6.1.156-177.286.amzn2023.x86_64
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20251027
default_cuda	/usr/local/cuda-12.5/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

apr-util-lmdb-1.6.3-1.amzn2023.0.2
kernel-livepatch-6.1.156-177.286-1.0-0.amzn2023

Updated Packages

Package Name	Previous Version	New Version
Markdown	3.9	3.10
aiohttp	3.13.1	3.13.2
amazon-linux-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
apr-util	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
apr-util-openssl	1.6.3-1.amzn2023.0.1	1.6.3-1.amzn2023.0.2
audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
audit-libs	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2
bleach	6.2.0	6.3.0

Package Name	Previous Version	New Version
boost-filesystem	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-system	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boost-thread	1.75.0-4.amzn2023.0.3	1.75.0-4.amzn2023.0.4
boto3	1.40.59	1.40.65
botocore	1.40.59	1.40.65
cloudpickle	3.1.1	3.1.2
fastapi	0.120.0	0.121.0
fsspec	2025.9.0	2025.10.0
go-srpm-macros	3.2.0-37.amzn2023	3.8.0-1.amzn2023.0.1
grub2-common	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-efi-x64-ec2	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-pc-modules	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
grub2-tools-minimal	2.06-61.amzn2023.0.19	2.06-61.amzn2023.0.20
inspectorssmplugin	1.0.402-1	1.0.405-1

Package Name	Previous Version	New Version
ipykernel	7.0.1	7.1.0
ipywidgets	8.1.7	8.1.8
jaraco.context	6.0.1	5.3.0
java-17-amazon-corretto-headless	17.0.16+8-1.amzn2023.1	17.0.17+10-1.amzn2023.1
jupyterlab_widgets	3.0.15	3.0.16
keras	3.11.3	3.12.0
kernel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-devel	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-headers	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-libbpf	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-livepatch-repo-s3	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
kernel-modules-extra	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-modules-extra-common	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
kernel-tools	6.1.155-176.282.amzn2023	6.1.156-177.286.amzn2023
lark	1.3.0	1.3.1

Package Name	Previous Version	New Version
libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
librepo	1.14.5-2.amzn2023.0.1	1.14.5-2.amzn2023.0.2
libsoup3	3.6.5-50.amzn2023	3.6.5-52.amzn2023
libsss_certmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_nss_idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libsss_sudo	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
libxslt	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
libxslt-devel	1.1.43-1.amzn2023.0.2	1.1.43-1.amzn2023.0.3
marshmallow	4.0.1	4.1.0
narwhals	2.9.0	2.10.1
nh3	0.3.1	0.3.2
perl-Math-BigInt-FastCalc	0.500.900-458.amzn2023.0.2	0.501.400-3.amzn2023.0.1
psutil	7.1.1	7.1.3
python3	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
python3-audit	3.1.5-1.amzn2023.0.1	3.1.5-1.amzn2023.0.2

Package Name	Previous Version	New Version
python3-hawkey	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libdnf	0.69.0-8.amzn2023.0.5	0.69.0-8.amzn2023.0.6
python3-libs	3.9.23-1.amzn2023.0.3	3.9.24-1.amzn2023.0.3
redis	7.0.0	7.0.1
regex	2025.10.23	2025.11.3
runc	1.3.1-1.amzn2023.0.1	1.3.2-2.amzn2023.0.1
scipy	1.16.2	1.16.3
sssd-client	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-common	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-kcm	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
sssd-nfs-idmap	2.9.4-1.amzn2023.0.2	2.9.4-1.amzn2023.0.3
starlette	0.48.0	0.49.3
system-release	2023.9.20251020-0.amzn2023	2023.9.20251027-0.amzn2023
termcolor	3.1.0	3.2.0
typing_extensions	4.15.0	4.12.2
virtualenv	20.35.3	20.35.4
webcolors	24.11.1	25.10.0
widgetsnbextension	4.0.14	4.0.15

Package Name	Previous Version	New Version
xyzservices	2025.4.0	2025.10.0

Removed Packages

Package Name
kernel-livepatch-6.1.155-176.282

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.18
gdr_copy	2.4.4
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
efa_version	1.43.3
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/tensorflow/bin/python3

Package Name	Version
nvidia_cuda_stack	/usr/local/cuda-12.5
ssm_agent_version	3.3.3050.0
kernel_version	6.1.153-175.280.amzn2023.x86_64
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Amazon Linux 2023.9.20250929
default_cuda	/usr/local/cuda-12.5/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

kernel-livepatch-6.1.153-175.280-1.0-0.amzn2023
nvidia-fabricmanager-580.95.05-1

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
aiohttp	3.12.15	3.13.0
amazon-linux-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
amazon-rpm-config	228-9.amzn2023.0.1	228-10.amzn2023.0.1
amazon-ssm-agent	3.3.2299.0-1.amzn2023	3.3.3050.0-1.amzn2023
attrs	25.3.0	25.4.0
beautifulsoup4	4.13.5	4.14.2
binutils	2.41-50.amzn2023.0.3	2.41-50.amzn2023.0.4
boto3	1.40.40	1.40.46
botocore	1.40.40	1.40.46
certifi	2025.8.3	2025.10.5
container-selinux	2.233.0-1.amzn2023	2.242.0-1.amzn2023
coreutils	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
coreutils-common	8.32-30.amzn2023.0.3	8.32-30.amzn2023.0.4
cpp14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
cryptography	46.0.1	46.0.2

Package Name	Previous Version	New Version
cups-filesystem	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
cups-libs	2.4.11-8.amzn2023.0.1	2.4.14-1.amzn2023.0.1
dnf-plugin-support-info	1.7-1.amzn2023	1.8-1.amzn2023
efa	2.17.2-1.amzn2023	2.17.3-1.amzn2023
expat	2.6.3-1.amzn2023.0.2	2.6.3-1.amzn2023.0.3
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
frozenlist	1.7.0	1.8.0
gcc14	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
inspectorssmplugin	1.0.398-1	1.0.399-1
ipython	9.5.0	9.6.0
isort	6.0.1	6.1.0
kernel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-devel	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-headers	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023

Package Name	Previous Version	New Version
kernel-libbpf	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-livepatch-repo-s3	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
kernel-modules-extra	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-modules-extra-common	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
kernel-tools	6.1.150-174.273.amzn2023	6.1.153-175.280.amzn2023
libatomic	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgcc	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgccjit	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgfortran	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libgomp	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libnccl-ofi	1.16.2-1.amzn2023	1.16.3-1.amzn2023
libquadmath	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2
libstdc++	14.2.1-7.amzn2023.0.1	14.2.1-7.amzn2023.0.2

Package Name	Previous Version	New Version
llvmlite	0.45.0	0.45.1
microcode_ctl	2.1-53.amzn2023.0.13	2.1-53.amzn2023.0.14
multidict	6.6.4	6.7.0
narwhals	2.5.0	2.7.0
nh3	0.3.0	0.3.1
nltk	3.9.1	3.9.2
notebook	7.4.6	7.4.7
numba	0.62.0	0.62.1
openjpeg2	2.4.0-11.amzn2023.0.6	2.5.2-5.amzn2023.0.1
pandas	2.3.2	2.3.3
pip-tools	7.5.0	7.5.1
plotly	6.3.0	6.3.1
propcache	0.3.2	0.4.0
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
pylint	3.3.8	3.3.9
python-json-logger	3.3.0	4.0.0
python3-awscrt	0.26.1-1.amzn2023.0.1	0.27.6-1.amzn2023.0.1

Package Name	Previous Version	New Version
rust-toolset-srpm-macros	1.89.0-1.amzn2023.0.3	1.90.0-1.amzn2023.0.1
selinux-policy	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
selinux-policy-targeted	38.1.50-1.amzn2023.0.2	38.1.65-1.amzn2023.0.1
system-release	2023.8.20250915-0.amzn2023	2023.9.20250929-0.amzn2023
typing-inspection	0.4.1	0.4.2
yarl	1.20.1	1.22.0

Removed Packages

Package Name
kernel-livepatch-6.1.150-174.273
nvidia-fabric-manager

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20250927

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en
operating_system	Amazon Linux 2023.8.20250915

Package Name	Version
compute_architecture	x86_64
kernel_version	6.1.150-174.273.amzn2023.x86_64
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.5/
nvidia_cuda_stack	/usr/local/cuda-12.5
gdr_copy	2.4.4
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

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Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
billiard	4.2.1	4.2.2
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
docutils	0.22.1	0.22.2
fastapi	0.116.2	0.117.1
flatbuffers	25.2.10	25.9.23
grpcio	1.75.0	1.75.1
inspectorssmplugin	1.0.396-1	1.0.398-1
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
notebook	7.4.5	7.4.6
packaging	24.2	25.0
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5

Package Name	Previous Version	New Version
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.18.0	0.19.2
typing_extensions	4.15.0	4.12.2
wcwidth	0.2.13	0.2.14
zope.interface	8.0	8.0.1

Removed Packages

No packages were removed in this release.

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-17

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20241215

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2024-12-09

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) 20241206

Added

- Initial release of the Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Amazon Linux 2023) series.
  - Software Includes the Following:
    - "nvidia-driver=560.35.03"
    - "fabric-manager=560.35.03"
    - "cuda=12.5"
    - "cudnn=9.5.1"
    - "efa=1.37.0"
    - "nccl=2.23.4"
    - "aws-nccl-ofi-plugin=v1.13.0-aws"
- Tensorflow virtual environment (activation command source /opt/tensorflow/bin/activate) includes the following:
  - "tensorflow=2.18.0"

Deep Learning AMI GPU TensorFlow 2.18 (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

Notices

- TensorFlow 2.18 is the final TensorFlow version supported for DLAMI. For future framework DLAMIs, please consider using PyTorch DLAMIs.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-tensorflow-2.18-ubuntu-22.04/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20260122
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20260121
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20260117
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20260103
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251227
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251209

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251115
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251108
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251007
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20250927

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20260122

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.126.09
nvidia_cuda_stack	/usr/local/cuda-12.5
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Markdown	3.10	3.10.1
SQLAlchemy	2.0.45	2.0.46
awscli	1.44.21	1.44.22
boto3	1.42.31	1.42.32
botocore	1.42.31	1.42.32
jmespath	1.0.1	1.1.0
libglib2.0-0	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-data	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8
libglib2.0-dev-bin	2.72.4-0ubuntu2.7	2.72.4-0ubuntu2.8

Package Name	Previous Version	New Version
nvidia-fabricmanager	580.105.08-1	580.126.09-1
nvidia-ml-py	13.590.44	13.590.48
pandas	2.3.3	3.0.0
wcwidth	0.2.14	0.3.0

Removed Packages

Package Name
pytz

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20260121

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.5

nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
async-lru	2.0.5	2.1.0
awscli	1.44.20	1.44.21
black	25.12.0	26.1.0
boto3	1.42.30	1.42.31

Package Name	Previous Version	New Version
botocore	1.42.30	1.42.31
dill	0.4.0	0.4.1
docker-compose-plugin	5.0.1-1~ubuntu.22.04~jammy	5.0.2-1~ubuntu.22.04~jammy
importlib_metadata	8.0.0	8.7.1
jaraco.functools	4.0.1	4.4.0
jaraco.text	3.12.1	4.0.0
java-11-amazon-corretto-jdk	11.0.29.7-1	11.0.30.7-1
libc-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-dev-bin	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc-devtools	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6	2.35-0ubuntu3.11	2.35-0ubuntu3.12
libc6-dev	2.35-0ubuntu3.11	2.35-0ubuntu3.12
locales	2.35-0ubuntu3.11	2.35-0ubuntu3.12
platformdirs	4.5.1	4.4.0
pycparser	2.23	3.0
pyparsing	3.3.1	3.3.2
python3-urllib3	1.26.5-1~exp1ubuntu0.5	1.26.5-1~exp1ubuntu0.6
pytokens	0.3.0	0.4.0

Package Name	Previous Version	New Version
setuptools	80.9.0	80.10.1
soupsieve	2.8.1	2.8.3
tomli	2.0.1	2.4.0
typing_extensions	4.12.2	4.15.0
zipp	3.19.2	3.23.0

Removed Packages

Package Name
inflect
jaraco.collections
typeguard

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20260117

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.18

python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.5
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	2.0.0	2.1.0

Package Name	Previous Version	New Version
awscli	1.44.15	1.44.20
boto3	1.42.25	1.42.30
botocore	1.42.25	1.42.30
dask	2025.12.0	2026.1.1
docker-ce-cli	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.4-1~ubuntu.22.04~jammy	29.1.5-1~ubuntu.22.04~jammy
inspectorssmplugin	1.0.432	1.0.434
jaraco.context	6.0.2	5.3.0
jupyter_server_terminals	0.5.3	0.5.4
jupyterlab	4.5.1	4.5.2
keras	3.13.0	3.13.1
klibc-utils	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libklibc	2.0.10-4ubuntu0.1	2.0.10-4ubuntu0.2
libpng-dev	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng-tools	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpng16-16	1.6.37-3ubuntu0.1	1.6.37-3ubuntu0.3
libpython3.10	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13

Package Name	Previous Version	New Version
libpython3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
libpython3.10-stdlib	3.10.12-1~22.04.12	3.10.12-1~22.04.13
librt	0.7.7	0.7.8
libtasn1-6	4.18.0-4ubuntu0.1	4.18.0-4ubuntu0.2
notebook	7.5.1	7.5.2
platformdirs	4.2.2	4.5.1
plotly	6.5.1	6.5.2
prometheus_client	0.23.1	0.24.1
pyasn1	0.6.1	0.6.2
python3-urllib3	1.26.5-1~exp1ubuntu0.4	1.26.5-1~exp1ubuntu0.5
python3.10-dev	3.10.12-1~22.04.12	3.10.12-1~22.04.13
python3.10-minimal	3.10.12-1~22.04.12	3.10.12-1~22.04.13
regex	2025.11.3	2026.1.15
scipy	1.16.3	1.17.0
tomlkit	0.13.3	0.14.0
typing_extensions	4.12.2	4.15.0

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20260103

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.5
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require

specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
Send2Trash	1.8.3	2.0.0
awscli	1.44.7	1.44.11
boto3	1.42.17	1.42.21
botocore	1.42.17	1.42.21
celery	5.6.0	5.6.1
docker-compose-plugin	5.0.0-1~ubuntu.22.04~jammy	5.0.1-1~ubuntu.22.04~jammy
fastapi	0.127.1	0.128.0
filelock	3.20.1	3.20.2
inspectorssmplugin	1.0.430	1.0.431
jaraco.context	5.3.0	6.0.2
json5	0.12.1	0.13.0
kombu	5.6.1	5.6.2
librt	0.7.5	0.7.7
pillow	12.0.0	12.1.0

Package Name	Previous Version	New Version
platformdirs	4.2.2	4.5.1
psutil	7.2.0	7.2.1
ruamel.yaml	0.18.17	0.19.1
termcolor	3.2.0	3.3.0
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
exceptiongroup
ruamel.yaml.clib

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251227

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1044-aws
framework_version	2.18
python_location	/opt/tensorflow/bin/python3

nvidia_driver	580.105.08
nvidia_cuda_stack	/usr/local/cuda-12.5
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

No packages were added in this release.

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.15	1.44.7
boto3	1.42.9	1.42.17

Package Name	Previous Version	New Version
botocore	1.42.9	1.42.17
containerd.io	2.2.0-2~ubuntu.22.04~jammy	2.2.1-1~ubuntu.22.04~jammy
debugpy	1.8.18	1.8.19
fastapi	0.124.4	0.127.1
filelock	3.20.0	3.20.1
flatbuffers	25.9.23	25.12.19
inspectorssmplugin	1.0.428	1.0.430
jaraco.context	6.0.1	6.0.2
jaraco.functools	4.0.1	4.4.0
joblib	1.5.2	1.5.3
jupyterlab	4.5.0	4.5.1
keras	3.12.0	3.13.0
librt	0.7.3	0.7.5
libxnvctrl0	590.44.01-0ubuntu1	590.48.01-0ubuntu1
marshmallow	4.1.1	4.1.2
mistune	3.1.4	3.2.0
more-itertools	10.3.0	10.8.0
mypy	1.19.0	1.19.1
narwhals	2.13.0	2.14.0
nbclient	0.10.2	0.10.4

Package Name	Previous Version	New Version
notebook	7.5.0	7.5.1
packaging	24.2	25.0
pipenv	2026.0.2	2026.0.3
platformdirs	4.2.2	4.5.1
psutil	7.1.3	7.2.0
pyparsing	3.2.5	3.3.1
ruamel.yaml	0.18.16	0.18.17
soupsieve	2.8	2.8.1
tornado	6.5.3	6.5.4
typer	0.20.0	0.21.0
typing_extensions	4.15.0	4.12.2
tzdata	2025.2	2025.3

Removed Packages

No packages were removed in this release.

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251209

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS

compute_architecture	x86_64
kernel_version	6.8.0-1043-aws
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.105.08
default_cuda	/usr/local/cuda-12.5/
nvidia_cuda_stack	/usr/local/cuda-12.5
nvidia_container_toolkit_version	1.18.1
efa_version	1.45.0
ofi_nccl_version	1.17.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

exceptiongroup-1.3.1
tzlocal-5.3.1

Updated Packages

Package Name	Previous Version	New Version
awscli	1.43.5	1.43.11
beautifulsoup4	4.14.2	4.14.3
billiard	4.2.3	4.2.4
binutils-common	2.38-4ubuntu2.10	2.38-4ubuntu2.11
binutils-x86-64-linux-gnu	2.38-4ubuntu2.10	2.38-4ubuntu2.11
black	25.11.0	25.12.0
boto3	1.41.5	1.42.5
botocore	1.41.5	1.42.5
celery	5.5.3	5.6.0
dkms	3.2.2-1ubuntu1	3.3.0-1ubuntu1
docker-ce-cli	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	29.1.1-1~ubuntu.22.04~jammy	29.1.2-1~ubuntu.22.04~jammy
docker-compose-plugin	2.40.3-1~ubuntu.22.04~jammy	5.0.0-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
fastapi	0.122.0	0.124.0
fsspec	2025.10.0	2025.12.0
gast	0.6.0	0.7.0
greenlet	3.2.4	3.3.0
inspectorssmplugin	1.0.419	1.0.423
ipython	9.7.0	9.8.0
kombu	5.5.4	5.6.1
libbinutils	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf-nobfd0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libctf0	2.38-4ubuntu2.10	2.38-4ubuntu2.11
libnvidia-container-tools	1.18.0-1	1.18.1-1
libnvidia-container1	1.18.0-1	1.18.1-1
librt	0.6.2	0.7.3
libxnvctrl0	580.105.08-0ubuntu1	590.44.01-0ubuntu1
linux-libc-dev	5.15.0-161.171	5.15.0-163.173
linux-tools-common	5.15.0-161.171	5.15.0-163.173
marshmallow	4.1.0	4.1.1
narwhals	2.12.0	2.13.0
nvidia-container-toolkit-base	1.18.0-1	1.18.1-1

Package Name	Previous Version	New Version
nvidia-fabricmanager	580.95.05-1	580.105.08-1
nvidia-ml-py	13.580.82	13.590.44
pipenv	2025.0.4	2025.1.1
pylint	4.0.3	4.0.4
pytest	9.0.1	9.0.2
rpds-py	0.29.0	0.30.0
s3transfer	0.15.0	0.16.0
typing_extensions	4.12.2	4.15.0
urllib3	2.5.0	2.6.1

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1040
linux-aws-6.8-tools-6.8.0-1040
linux-headers-6.8.0-1040-aws
linux-image-6.8.0-1040-aws
linux-modules-6.8.0-1040-aws
linux-tools-6.8.0-1040-aws

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251115

For help getting started, see Getting started with DLAMI.

Major Package Versions

supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1041-aws
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	580.95.05
default_cuda	/usr/local/cuda-12.5/
nvidia_cuda_stack	/usr/local/cuda-12.5
nvidia_container_toolkit_version	1.18.0
efa_version	1.44.0
ofi_nccl_version	1.17.1
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

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our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
linux-aws-6.8-headers-6.8.0-1041-6.8.0-1041.43~22.04.1
linux-aws-6.8-tools-6.8.0-1041-6.8.0-1041.43~22.04.1
linux-headers-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
linux-image-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
linux-modules-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
linux-tools-6.8.0-1041-aws-6.8.0-1041.43~22.04.1
lustre-client-modules-6.8.0-1041-aws-2.15.6-1fsx21
```

Updated Packages

Package Name	Previous Version	New Version
SecretStorage	3.4.0	3.4.1
annotated-doc	0.0.3	0.0.4
astroid	4.0.1	4.0.2
awscli	1.42.69	1.42.74
black	25.9.0	25.11.0
boto3	1.40.69	1.40.74
botocore	1.40.69	1.40.74
certifi	2025.10.5	2025.11.12

Package Name	Previous Version	New Version
containerd.io	1.7.29-1~ubuntu.22.04~jammy	2.1.5-1~ubuntu.22.04~jammy
docker-buildx-plugin	0.29.1-1~ubuntu.22.04~jammy	0.30.0-1~ubuntu.22.04~jammy
docker-ce-cli	28.5.2-1~ubuntu.22.04~jammy	29.0.1-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.2-1~ubuntu.22.04~jammy	29.0.1-1~ubuntu.22.04~jammy
fastapi	0.121.0	0.121.2
ibacm	58.amzn0-1	59.amzn0-1
ibverbs-providers	58.amzn0-1	59.amzn0-1
ibverbs-utils	58.amzn0-1	59.amzn0-1
infiniband-diags	58.amzn0-1	59.amzn0-1
inspectorssmplugin	1.0.411	1.0.412
intel-microcode	3.20250512.0ubuntu0.22.04.1	3.20250812.0ubuntu0.22.04.1
libfabric-aws-bin	2.1.0amzn5.0	2.3.1amzn1.0
libfabric-aws-dev	2.1.0amzn5.0	2.3.1amzn1.0
libfabric1-aws	2.1.0amzn5.0	2.3.1amzn1.0
libibmad-dev	58.amzn0-1	59.amzn0-1
libibmad5	58.amzn0-1	59.amzn0-1
libibnetdisc-dev	58.amzn0-1	59.amzn0-1

Package Name	Previous Version	New Version
libibnetdisc5	58.amzn0-1	59.amzn0-1
libibumad-dev	58.amzn0-1	59.amzn0-1
libibumad3	58.amzn0-1	59.amzn0-1
libibverbs-dev	58.amzn0-1	59.amzn0-1
libibverbs1	58.amzn0-1	59.amzn0-1
libnccl-ofi	1.16.3-1	1.17.1-1
librdmacm-dev	58.amzn0-1	59.amzn0-1
librdmacm1	58.amzn0-1	59.amzn0-1
linux-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
linux-headers-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
linux-image-aws	6.8.0-1040.42~22.04.1	6.8.0-1041.43~22.04.1
narwhals	2.10.2	2.11.0
openmpi50-aws	5.0.6	5.0.8
optree	0.17.0	0.18.0
pip-tools	7.5.1	7.5.2
pipdeptree	2.29.0	2.30.0
pydantic	2.12.4	2.9.2
pydantic_core	2.41.5	2.23.4

Package Name	Previous Version	New Version
pylint	4.0.2	4.0.3
pytest	8.4.2	9.0.1
rdmacm-utils	58.amzn0-1	59.amzn0-1
safety-schemas	0.0.16	0.0.14
snapd	2.71+ubuntu22.04	2.72+ubuntu22.04
zope.interface	8.0.1	8.1

Removed Packages

Package Name
lustre-client-modules-6.8.0-1040-aws
lustre-client-modules-aws

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251108

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
framework_version	2.18
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
efa_version	1.43.3
nvme_location	/opt/dlami/nvme

Package Name	Version
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/tensorflow/bin/python3
nvidia_cuda_stack	/usr/local/cuda-12.5
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.18.0
dcgm_version	/bin/bash: line 1: dcgmi: command not found
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.5/
compute_architecture	x86_64

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

```
ImageIO-2.37.2
```

Updated Packages

Package Name	Previous Version	New Version
Markdown	3.9	3.10
amazon-cloudwatch-agent	1.300060.0b1248-1	1.300061.0b1289-1
awscli	1.42.64	1.42.69
bokeh	3.8.0	3.8.1
boto3	1.40.64	1.40.69
botocore	1.40.64	1.40.69
cloudpickle	3.1.1	3.1.2
containerd.io	1.7.28-1~ubuntu.22.04~jammy	1.7.29-1~ubuntu.22.04~jammy
dask	2025.10.0	2025.11.0
dkms	3.2.1-1ubuntu2	3.2.2-1ubuntu1
docker-ce-cli	28.5.1-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.5.1-1~ubuntu.22.04~jammy	28.5.2-1~ubuntu.22.04~jammy
fastapi	0.120.4	0.121.0
inspectorssmplugin	1.0.404	1.0.411

Package Name	Previous Version	New Version
ipython	9.6.0	9.7.0
ipywidgets	8.1.7	8.1.8
jupyterlab_widgets	3.0.15	3.0.16
libxnvctrl0	580.95.05-0ubuntu1	580.105.08-0ubuntu1
marshmallow	4.0.1	4.1.0
more-itertools	10.3.0	10.8.0
narwhals	2.10.1	2.10.2
packaging	24.2	25.0
plotly	6.3.1	6.4.0
psutil	7.1.2	7.1.3
pydantic	2.12.3	2.12.4
pydantic_core	2.41.4	2.41.5
pytokens	0.2.0	0.3.0
regex	2025.10.23	2025.11.3
starlette	0.49.1	0.49.3
typing_extensions	4.12.2	4.15.0
widgetsnbextension	4.0.14	4.0.15
wrapt	2.0.0	2.0.1

Removed Packages

Package Name
imageio

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20251007

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.18
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/tensorflow/bin/python3
nvidia_cuda_stack	/usr/local/cuda-12.5
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws

Package Name	Version
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.5/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21

```
nvidia-fabricmanager-580.95.05-1
```

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.4	1.6.5
MarkupSafe	3.0.2	3.0.3
aiohttp	3.12.15	3.13.0
attrs	25.3.0	25.4.0
awscli	1.42.40	1.42.46
beautifulsoup4	4.13.5	4.14.2
boto3	1.40.40	1.40.46
botocore	1.40.40	1.40.46
certifi	2025.8.3	2025.10.5
cloud-init	25.1.4-0ubuntu0~22.04.1	25.2-0ubuntu1~22.04.1
cryptography	46.0.1	46.0.2
docker-buildx-plugin	0.28.0-0~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy
docker-ce-rootless-extras	28.4.0-1~ubuntu.22.04~jammy	28.5.0-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-compose-plugin	2.39.4-0~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
fastapi	0.117.1	0.118.0
fonttools	4.60.0	4.60.1
frozenlist	1.7.0	1.8.0
inspectorssmplugin	1.0.398	1.0.399
ipython	9.5.0	9.6.0
isort	6.0.1	6.1.0
jaraco.functools	4.3.0	4.0.1
libcurl3-gnutls	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libcurl4	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libnccl-ofi	1.16.2-1	1.16.3-1
libssl-dev	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libssl3	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libtiff5	4.3.0-6ubuntu0.11	4.3.0-6ubuntu0.12
libxnvctrl0	580.82.07-0ubuntu1	580.95.05-0ubuntu1
linux-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1

Package Name	Previous Version	New Version
linux-image-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
linux-libc-dev	5.15.0-156.166	5.15.0-157.167
linux-tools-common	5.15.0-156.166	5.15.0-157.167
llvmlite	0.45.0	0.45.1
lustre-client-modules-aws	6.8.0-1039.41~22.04.1	6.8.0-1040.42~22.04.1
more-itertools	10.8.0	10.3.0
multidict	6.6.4	6.7.0
narwhals	2.5.0	2.7.0
needrestart	3.5-5ubuntu2.4	3.5-5ubuntu2.5
nh3	0.3.0	0.3.1
nltk	3.9.1	3.9.2
notebook	7.4.6	7.4.7
numba	0.62.0	0.62.1
open-vm-tools	12.3.5-3~ubuntu0.22.04.2	12.3.5-3~ubuntu0.22.04.3
packaging	24.2	25.0
pandas	2.3.2	2.3.3
pip-tools	7.5.0	7.5.1
platformdirs	4.2.2	4.4.0

Package Name	Previous Version	New Version
plotly	6.3.0	6.3.1
propcache	0.3.2	0.4.0
pydantic	2.11.9	2.12.0
pydantic_core	2.33.2	2.41.1
pylint	3.3.8	3.3.9
python-json-logger	3.3.0	4.0.0
typing-inspection	0.4.1	0.4.2
yarl	1.20.1	1.22.0

Removed Packages

Package Name
lustre-client-modules-6.8.0-1039-aws
nvidia-fabricmanager-570

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20250927

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS

Package Name	Version
compute_architecture	x86_64
kernel_version	6.8.0-1039-aws
framework_version	2.18
python_location	/opt/tensorflow/bin/python3
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.5/
nvidia_cuda_stack	/usr/local/cuda-12.5
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
lustre-client-modules-6.8.0-1039-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
PyYAML	6.0.2	6.0.3
anyio	4.10.0	4.11.0
awscli	1.42.35	1.42.40
billiard	4.2.1	4.2.2
boto3	1.40.35	1.40.40
botocore	1.40.35	1.40.40
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
fastapi	0.116.2	0.117.1
flatbuffers	25.2.10	25.9.23

Package Name	Previous Version	New Version
grpcio	1.75.0	1.75.1
inspectorssmplugin	1.0.396	1.0.398
jaraco.context	6.0.1	5.3.0
jaraco.functools	4.0.1	4.3.0
jupyterlab	4.4.7	4.4.9
lark	1.2.2	1.3.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-156.166
linux-tools-common	5.15.0-153.163	5.15.0-156.166
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11

Package Name	Previous Version	New Version
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1039.41~22.04.1
notebook	7.4.5	7.4.6
pydantic	2.9.2	2.11.9
pydantic_core	2.23.4	2.33.2
pyparsing	3.2.4	3.2.5
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
ruamel.yaml.clib	0.2.12	0.2.14
safety-schemas	0.0.14	0.0.16
typer	0.18.0	0.19.2
typing_extensions	4.12.2	4.15.0
wcwidth	0.2.13	0.2.14
zope.interface	8.0	8.0.1

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1036-aws
linux-image-6.8.0-1036-aws

Package Name
linux-modules-6.8.0-1036-aws
linux-tools-6.8.0-1036-aws
lustre-client-modules-6.8.0-1036-aws

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-17

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20250215

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-20

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20250118

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2024-12-09

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) 20241206

Added

- Initial release of the Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.18 (Ubuntu 22.04) series.
  - Software Includes the Following:
    - "nvidia-driver=550.127.05"
    - "fabric-manager=550.127.05"
    - "cuda=12.5"
    - "cudnn=9.5.1"
    - "efa=1.37.0"
    - "nccl=2.23.4"
    - "aws-nccl-ofi-plugin=v1.13.0-aws"
- Tensorflow virtual environment (activation command source /opt/tensorflow/bin/activate) includes the following:
  - "tensorflow=2.18.0"

Fixed

- Due to a change in the Ubuntu kernel to address a defects in the Kernel Address Space Layout Randomization (KASLR) functionality, G4Dn/G5 instances are unable to properly initialize CUDA on the OSS Nvidia driver. In order to mitigate this issue, this DLAMI includes functionality that dynamically loads the proprietary driver for G4Dn and G5 instances. Please allow a brief initialization period for this loading in order to ensure that your instances are able to work properly.
  - To check the status and health of this service, you can use the following commands:

```
sudo systemctl is-active dynamic_driver_load.service
active
```

Deep Learning AMI GPU TensorFlow 2.17 (Ubuntu 22.04)

> **Note**
>
> For detailed software package information, please refer to the individual release notes pages linked below

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) ${YYYY-MM-DD}

SSM Parameter Query

Please use the following Public SSM Parameter Query to find the latest DLAMI:

```
export SSM_PARAMETER=oss-nvidia-driver-gpu-tensorflow-2.17-ubuntu-22.04/latest/ami-id
 && \
        aws ssm get-parameter --region us-east-1 \
        --name /aws/service/deeplearning/ami/x86_64/$SSM_PARAMETER \
        --query "Parameter.Value" \
        --output text
```

AWSCLI Query

Please use the following AWS Query to find the latest DLAMI:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu
 22.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

Latest Releases

Latest Release Notes for this DLAMI

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) 20251008
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) 20250830

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) 20251008

For help getting started, see Getting started with DLAMI.

Notices

- This release contains CVE patches for affected Nvidia Driver packages found in the Nvidia October Security Bulletin

Major Package Versions

Package Name	Version
framework_version	2.17
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
efa_version	1.43.3
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
nvidia_driver	580.95.05
python_location	/opt/tensorflow/bin/python3
nvidia_cuda_stack	/usr/local/cuda-12.3
ssm_agent_version	3.3.2299.0
kernel_version	6.8.0-1040-aws
nvidia_container_toolkit_version	1.17.8
ofi_nccl_version	1.16.3

Package Name	Version
operating_system	Ubuntu 22.04.5 LTS
default_cuda	/usr/local/cuda-12.3/
compute_architecture	x86_64

Package Changes from Previous Release

> **Note**
>
> All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-headers-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-aws-6.8-tools-6.8.0-1039-6.8.0-1039.41~22.04.1
linux-aws-6.8-tools-6.8.0-1040-6.8.0-1040.42~22.04.1
linux-headers-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-headers-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-image-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-image-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-modules-6.8.0-1039-aws-6.8.0-1039.41~22.04.1

linux-modules-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
linux-tools-6.8.0-1039-aws-6.8.0-1039.41~22.04.1
linux-tools-6.8.0-1040-aws-6.8.0-1040.42~22.04.1
lustre-client-modules-6.8.0-1040-aws-2.15.6-1fsx21
nvidia-fabricmanager-580.95.05-1
pytokens-0.1.10

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.3	1.6.5
Markdown	3.8.2	3.9
MarkupSafe	3.0.2	3.0.3
PyYAML	6.0.2	6.0.3
SecretStorage	3.3.3	3.4.0
aiohttp	3.12.15	3.13.0
amazon-cloudwatch-agent	1.300057.1b1167-1	1.300059.0b1207-1
anyio	4.10.0	4.11.0
attrs	25.3.0	25.4.0
awscli	1.42.21	1.42.47
beautifulsoup4	4.13.5	4.14.2
billiard	4.2.1	4.2.2

Package Name	Previous Version	New Version
bind9-dnsutils	9.18.30-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.1
bind9-host	9.18.30-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.1
bind9-libs	9.18.30-0ubuntu0.22.04.2	9.18.39-0ubuntu0.22.04.1
black	25.1.0	25.9.0
boto3	1.40.21	1.40.47
botocore	1.40.21	1.40.47
certifi	2025.8.3	2025.10.5
cffi	1.17.1	2.0.0
click	8.2.1	8.3.0
cloud-init	25.1.4-0ubuntu0~22.04.1	25.2-0ubuntu1~22.04.1
containerd.io	1.7.27-1	1.7.28-0~ubuntu.22.04~jammy
cryptography	45.0.6	46.0.2
dask	2025.7.0	2025.9.1
debugpy	1.8.16	1.8.17
docker-buildx-plugin	28.3.3-1~ubuntu.22.04~jammy	0.29.1-1~ubuntu.22.04~jammy
docker-ce-cli	28.3.3-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy

Package Name	Previous Version	New Version
docker-ce-rootless-extras	28.3.3-1~ubuntu.22.04~jammy	28.5.1-1~ubuntu.22.04~jammy
docker-compose-plugin	28.3.3-1~ubuntu.22.04~jammy	2.40.0-1~ubuntu.22.04~jammy
dpkg-dev	1.21.1ubuntu2.3	1.21.1ubuntu2.6
efa	2.17.2-1.amzn1	2.17.3-1.amzn1
executing	2.2.0	2.2.1
fastapi	0.116.1	0.118.2
filelock	3.16.1	3.20.0
flatbuffers	25.2.10	25.9.23
fonttools	4.59.2	4.60.1
frozenlist	1.7.0	1.8.0
fsspec	2025.7.0	2025.9.0
grpcio	1.74.0	1.75.1
inspectorssmplugin	1.0.388	1.0.399
ipython	9.5.0	9.6.0
isort	6.0.1	6.1.0
jsonschema-specifications	2025.4.1	2025.9.1
jupyterlab	4.4.6	4.4.9
landscape-common	23.02-0ubuntu1~22.04.4	23.02-0ubuntu1~22.04.6

Package Name	Previous Version	New Version
lark	1.2.2	1.3.0
libc-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-dev-bin	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc-devtools	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libc6-dev	2.35-0ubuntu3.10	2.35-0ubuntu3.11
libcurl3-gnutls	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libcurl4	7.81.0-1ubuntu1.20	7.81.0-1ubuntu1.21
libdpkg-perl	1.21.1ubuntu2.3	1.21.1ubuntu2.6
libmysqlclient21	8.0.43-0ubuntu0.22.04.1	8.0.43-0ubuntu0.22.04.2
libnccl-ofi	1.16.2-1	1.16.3-1
libssl-dev	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libssl3	3.0.2-0ubuntu1.19	3.0.2-0ubuntu1.20
libtiff5	4.3.0-6ubuntu0.11	4.3.0-6ubuntu0.12
libxml2	2.9.13+dfsg-1ubuntu0.8	2.9.13+dfsg-1ubuntu0.9
libxnvctrl0	580.65.06-0ubuntu1	580.95.05-0ubuntu1
linux-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1
linux-headers-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1

Package Name	Previous Version	New Version
linux-image-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1
linux-libc-dev	5.15.0-153.163	5.15.0-157.167
linux-tools-common	5.15.0-153.163	5.15.0-157.167
llvmlite	0.44.0	0.45.1
locales	2.35-0ubuntu3.10	2.35-0ubuntu3.11
lustre-client-modules-aws	6.8.0-1036.38~22.04.1	6.8.0-1040.42~22.04.1
more-itertools	10.3.0	10.8.0
multidict	6.6.4	6.7.0
mypy	1.17.1	1.18.2
narwhals	2.2.0	2.7.0
nbclassic	1.3.1	1.3.3
needrestart	3.5-5ubuntu2.4	3.5-5ubuntu2.5
nh3	0.3.0	0.3.1
nltk	3.9.1	3.9.2
numba	0.61.2	0.62.1
nvidia-ml-py	13.580.65	13.580.82
open-vm-tools	12.3.5-3~ubuntu0.22.04.2	12.3.5-3~ubuntu0.22.04.3
pandas	2.3.2	2.3.3

Package Name	Previous Version	New Version
pip-tools	7.5.0	7.5.1
platformdirs	4.4.0	4.5.0
plotly	6.3.0	6.3.1
prometheus_client	0.22.1	0.23.1
psutil	6.1.1	7.1.0
pyOpenSSL	25.1.0	25.3.0
pycparser	2.22	2.23
pydantic	2.9.2	2.12.0
pydantic_core	2.23.4	2.41.1
pylint	3.3.8	3.3.9
pyparsing	3.2.3	3.2.5
pytest	8.4.1	8.4.2
python-json-logger	3.3.0	4.0.0
python3-pip	22.0.2+dfsg-1ubuntu0.6	22.0.2+dfsg-1ubuntu0.7
pyzmq	27.0.2	27.1.0
regex	2025.8.29	2025.9.18
ruamel.yaml.clib	0.2.12	0.2.14
s3transfer	0.13.1	0.14.0
safety-schemas	0.0.14	0.0.16
scikit-learn	1.7.1	1.7.2

Package Name	Previous Version	New Version
scipy	1.16.1	1.16.2
starlette	0.47.3	0.48.0
systemd-hwe-hwdb	249.11.5	249.11.6
tf_keras	2.19.0	2.17.0
twine	6.1.0	6.2.0
typer	0.16.1	0.19.2
types-python-dateutil	2.9.0.20250822	2.9.0.20251008
typing-inspection	0.4.1	0.4.2
wcwidth	0.2.13	0.2.14
websocket-client	1.8.0	1.9.0
yarl	1.20.1	1.22.0
zope.interface	7.2	8.0.1

Removed Packages

Package Name
linux-aws-6.8-headers-6.8.0-1035
linux-aws-6.8-headers-6.8.0-1036
linux-aws-6.8-tools-6.8.0-1035
linux-aws-6.8-tools-6.8.0-1036
linux-headers-6.8.0-1035-aws

Package Name
linux-headers-6.8.0-1036-aws
linux-image-6.8.0-1035-aws
linux-image-6.8.0-1036-aws
linux-modules-6.8.0-1035-aws
linux-modules-6.8.0-1036-aws
linux-tools-6.8.0-1035-aws
linux-tools-6.8.0-1036-aws
lustre-client-modules-6.8.0-1036-aws
nvidia-fabricmanager-570

Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) 20250830

For help getting started, see Getting started with DLAMI.

Major Package Versions

Package Name	Version
supported_ec2_instances	G4dn, G5, G6, Gr6, G6e, P4d, P5, P5e, P5en
operating_system	Ubuntu 22.04.5 LTS
compute_architecture	x86_64
kernel_version	6.8.0-1036-aws
framework_version	2.17
python_location	/opt/tensorflow/bin/python3

Package Name	Version
nvidia_driver	570.172.08
default_cuda	/usr/local/cuda-12.3/
nvidia_cuda_stack	/usr/local/cuda-12.3
nvidia_container_toolkit_version	1.17.8
efa_version	1.43.1
ofi_nccl_version	1.16.2
nvme_location	/opt/dlami/nvme
ebs_volume_type	gp3
ssm_agent_version	3.3.2299.0

Package Changes from Previous Release

Note

All DLAMI are scanned for vulnerabilities following AWS Best Practices. While we continuously upgrade to the latest package versions in each release, some dependencies may require specific package downgrades to maintain compatibility. These adjustments do not impact our security posture. For comprehensive information on AWS security measures, please refer to our AWS Security Documentation

Added Packages

linux-aws-6.8-headers-6.8.0-1036-6.8.0-1036.38~22.04.1
linux-aws-6.8-tools-6.8.0-1036-6.8.0-1036.38~22.04.1
linux-headers-6.8.0-1036-aws-6.8.0-1036.38~22.04.1

linux-image-6.8.0-1036-aws-6.8.0-1036.38~22.04.1
linux-modules-6.8.0-1036-aws-6.8.0-1036.38~22.04.1
linux-tools-6.8.0-1036-aws-6.8.0-1036.38~22.04.1
lustre-client-modules-6.8.0-1036-aws-2.15.6-1fsx21

Updated Packages

Package Name	Previous Version	New Version
Authlib	1.6.1	1.6.3
awscli	1.42.16	1.42.21
beautifulsoup4	4.13.4	4.13.5
bokeh	3.7.3	3.8.0
boto3	1.40.16	1.40.21
botocore	1.40.16	1.40.21
fonttools	4.59.1	4.59.2
inspectorssmplugin	1.0.386	1.0.388
ipython	9.4.0	9.5.0
joblib	1.5.1	1.5.2
jupyter-lsp	2.2.6	2.3.0
libudisks2-0	2.9.4-1ubuntu2.2	2.9.4-1ubuntu2.3
linux-aws	6.8.0-1035.37~22.04.1	6.8.0-1036.38~22.04.1

Package Name	Previous Version	New Version
linux-headers-aws	6.8.0-1035.37~22.04.1	6.8.0-1036.38~22.04.1
linux-image-aws	6.8.0-1035.37~22.04.1	6.8.0-1036.38~22.04.1
linux-libc-dev	5.15.0-152.162	5.15.0-153.163
linux-tools-common	5.15.0-152.162	5.15.0-153.163
lustre-client-modules-aws	6.8.0-1035.37~22.04.1	6.8.0-1036.38~22.04.1
marshmallow	4.0.0	4.0.1
matplotlib	3.10.5	3.10.6
mistune	3.1.3	3.1.4
narwhals	2.1.2	2.2.0
parso	0.8.4	0.8.5
platformdirs	4.3.8	4.2.2
prompt_toolkit	3.0.51	3.0.52
regex	2025.7.34	2025.8.29
rpds-py	0.27.0	0.27.1
soupsieve	2.7	2.8
starlette	0.47.2	0.47.3
typing_extensions	4.12.2	4.15.0

Removed Packages

Package Name
`lustre-client-modules-6.8.0-1035-aws`

Archive

Archived Release Notes

- Release Notes Archive

Release Notes Archive

Release Date: 2025-02-17

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) 20250215

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
  - In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in the If you use a CUDA compatibility layer tutorial.

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVEs present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-20

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) 20250118

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVEs present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Version 2.17.1

Release date: 2024-11-18

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) 20241115

Fixed

- Due to a change in the Ubuntu kernel to address a defects in the Kernel Address Space Layout Randomization (KASLR) functionality, G4Dn/G5 instances are unable to properly initialize CUDA on the OSS Nvidia driver. In order to mitigate this issue, this DLAMI includes functionality that dynamically loads the proprietary driver for G4Dn and G5 instances. Please allow a brief initialization period for this loading in order to ensure that your instances are able to work properly.
  - To check the status and health of this service, you can use the following commands:

```
sudo systemctl is-active dynamic_driver_load.service
active
```

Version 2.17.0

Release date: 2024-09-25

AMI name: Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) 20240924

Added

- Initial release of the Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.17 (Ubuntu 22.04) series.
  - Software Includes the Following:
    - "nvidia-driver=550.90.07"
    - "fabric-manager=550.90.07"
    - "cuda=12.3"

  - "cudnn=8.9.7"
  - "efa=1.34.0"
  - "nccl=2.22.3"
  - "aws-nccl-ofi-plugin=v1.11.0-aws"
- Tensorflow virtual environment (activation command source /opt/tensorflow/bin/activate) includes the following:
  - "tensorflow=2.17.0"

AWS Deep Learning AMI GPU TensorFlow 2.16 (Amazon Linux 2)

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) ${YYYY-MM-DD}
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) ${YYYY-MM-DD}

Supported EC2 instances

- Please refer to Important changes to DLAMI.
- Deep Learning with OSS Nvidia Driver supports G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en.
- Deep Learning with Proprietary Nvidia Driver supports G3 (G3.16x not supported), P3, P3dn

The AMI includes the following:

- **Supported AWS Service**: EC2
- **Operating System**: Amazon Linux 2
- **Compute Architecture**: x86
- **Python**: /opt/tensorflow/bin/python3.10
- **TensorFlow version**: 2.16
- **NVIDIA Driver**:
  - OSS Nvidia driver: 550.144.03

  - Proprietary Nvidia driver: 550.144.03
- **NVIDIA CUDA12 stack**:
  - CUDA, NCCL and cuDDN installation path: /usr/local/cuda-12.2/
- **EFA Installer**: 1.34.0
- **AWS CLI v2** as aws2 and **AWS CLI v1** as aws
- **EBS volume type**: gp3
- **Query AMI-ID with SSM Parameter (example region is us-east-1)**:
  - **OSS Nvidia Driver**:

```
aws ssm get-parameter --name /aws/service/deeplearning/ami/x86_64/oss-nvidia-
driver-gpu-tensorflow-2.16-amazon-linux-2/latest/ami-id --region us-east-1 --query
 "Parameter.Value" --output text
```

  - **Proprietary Nvidia Driver**:

```
aws ssm get-parameter --name /aws/service/deeplearning/ami/x86_64/proprietary-
nvidia-driver-gpu-tensorflow-2.16-amazon-linux-2/latest/ami-id --region us-east-1
 --query "Parameter.Value" --output text
```

- **Query AMI-ID with AWSCLI (example region is us-east-1)**:
  - **OSS Nvidia Driver**:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon
 Linux 2) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

  - **Proprietary Nvidia Driver**:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow
 2.16 (Amazon Linux 2) ????????' 'Name=state,Values=available' --query
 'reverse(sort_by(Images, &CreationDate))[:1].ImageId' --output text
```

Notice

NVIDIA Container Toolkit 1.17.4

In Container Toolkit version 1.17.4 the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in under the "If you use a CUDA compatibility layer" tutorial here - https://docs.aws.amazon.com/sagemaker/latest/dg/inference-gpu-drivers.html#collapsible-cuda-compat

Future TensorFlow Operating System Updates

TensorFlow 2.16 will be the last DLAMI that utilizes the Ubuntu 20.04 Operating System. Starting with TensorFlow 2.17 and above, DLAMIs will begin to utilize Ubuntu 22.04 as the base Operating System. For customers looking to upgrade to these new versions, please ensure your workflows are ready for this upgrade.

Keras version pinned to 2.0 instead of 3.0

With the latest TF2.16 release, Keras has been upgraded from major version 2 to major version 3.0. This Keras version is a complete rewrite of the Keras package (please see the Keras 3 documentation for more information). To ensure compatibility with customer workflows, we have pinned Keras versions to 2.0 using the environment variable TF_USE_LEGACY_KERAS=1. If your workflows require usage of Keras 3.0, please remove this environment variable from your TensorFlow virtual environment /opt/tensorflow using the following script:

```
source /opt/tensorflow/bin/activate
unset TF_USE_LEGACY_KERAS
```

Release Date: 2025-02-17

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20250215
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20250215

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4

- Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4
- In Container Toolkit version 1.17.4, the mounting of CUDA compat libraries is now disabled. In order to ensure compatibility with multiple CUDA versions on container workflows, please ensure you update your LD_LIBRARY_PATH to include your CUDA compatibility libraries as shown in under the "If you use a CUDA compatibility layer" tutorial here - https://docs.aws.amazon.com/sagemaker/latest/dg/inference-gpu-drivers.html#collapsible-cuda-compat

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit to address CVE's present in the NVIDIA CUDA Toolkit Security Bulletin for February 18, 2025

Release Date: 2025-01-20

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20250120
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20250118

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVE's present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2024-10-23

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20241022
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20241023

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVE's present in the NVIDIA GPU Display Security Bulletin for October 2024

Release Date: 2024-09-28

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240928
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240928

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2, addressing the security vulnerability CVE-2024-0133.

Release Date: 2024-09-21

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240921
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240921

Updated

- Upgraded Nvidia driver and Fabric Manager from version 535.183.01 to 550.90.07
- Upgraded EFA Version from 1.32.0 to 1.34.0
- Updated PyTorch version from version 2.3.0 to 2.3.1

Added

- Added support for P5e EC2 Instance on OSS Nvidia Driver Images.

Release Date: 2024-08-19

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240817

Added

- Added support for G6e EC2 instance.

Version 2.16.2 - Release Date: 2024-07-26

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240725

Updated

- Updated TensorFlow patch version from version 2.16.1 to 2.16.2
- Resolved incorrect TensorFlow minor version in DLAMI released on 2024-07-17
  - Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240717 release inadvertently contained TensorFlow minor version 2.17 rather than 2.16. Please ensure workflows reliant on TensorFlow 2.16 are upgrading to the latest DLAMI.

Version 2.16.1 - Release Date: 2024-06-10

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240607
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240610

Updated

- Updated Nvidia driver version to 535.183.01 from 535.161.08

Release Date: 2024-05-10

Please refer to Important changes to DLAMI

AMI Names:

- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240510
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) 20240510

Added

- Initial release of:
  - Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) series.
  - Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Amazon Linux 2) series.
  - Software Includes the Following:
    - "nvidia-driver=535.161.08"
    - "fabric-manager=535.161.08"
    - "cuda=12.3"
    - "cudnn=8.9.7"
    - "efa=1.32.0"
    - "nccl=2.21.5"
    - "aws-nccl-ofi-plugin=v1.9.1-aws"
- Added tensorflow virtual environment (activation command source /opt/tensorflow/bin/activate). This environment includes the following:
  - "tensorflow=2.16.1"
  - **NOTE**
    - Starting with TF2.16, the tf.estimator API is removed.
      - To continue using tf.estimator, you will need to use TF 2.15 or an earlier version. Please see the TensorFlow 2.16.1 release notes for more information
    - To ensure compatibility with customer workflows, we have pinned Keras versions to 2.0 using the environment variable TF_USE_LEGACY_KERAS=1. If your workflows require usage of Keras 3.0, please remove this environment variable from your TensorFlow virtual environment /opt/tensorflow using the following script:

```
source /opt/tensorflow/bin/activate
unset TF_USE_LEGACY_KERAS
```

AWS Deep Learning AMI GPU TensorFlow 2.16 (Ubuntu 20.04)

For help getting started, see Getting started with DLAMI.

AMI Name Format

- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) ${YYYY-MM-DD}
- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) ${YYYY-MM-DD}

Supported EC2 instances

- Please refer to Important changes to DLAMI
- Deep Learning with OSS Nvidia Driver supports G4dn, G5, G6, Gr6, G6e, P4d, P4de, P5, P5e, P5en.
- Deep Learning with Proprietary Nvidia Driver supports G3 (G3.16x not supported), P3, P3dn

The AMI includes the following:

- **Supported AWS Service**: EC2
- **Operating System**: Ubuntu 20.04
- **Compute Architecture**: x86
- **Python**: /opt/tensorflow/bin/python3.10
- **TensorFlow version**: 2.16
- **NVIDIA Driver**:
  - OSS Nvidia driver: 550.144.03
  - Proprietary Nvidia driver: 550.144.03
- **NVIDIA CUDA12 stack**:
  - CUDA, NCCL and cuDDN installation path: /usr/local/cuda-12.3/
- **EFA Installer**: 1.34.0
- **AWS CLI v2** as aws2 and **AWS CLI v1** as aws
- **EBS volume type**: gp3
- **Query AMI-ID with SSM Parameter (example region is us-east-1)**:
  - **OSS Nvidia Driver**:

```
aws ssm get-parameter --name /aws/service/deeplearning/ami/x86_64/oss-nvidia-
driver-gpu-tensorflow-2.16-ubuntu-20.04/latest/ami-id --region us-east-1 --region
 us-east-1 --query "Parameter.Value" --output text
```

- **Proprietary Nvidia Driver**:

```
aws ssm get-parameter --name /aws/service/deeplearning/ami/x86_64/proprietary-
nvidia-driver-gpu-tensorflow-2.16-ubuntu-20.04/latest/ami-id --region us-east-1 --
region us-east-1 --query "Parameter.Value" --output text
```

- **Query AMI-ID with AWSCLI (example region is us-east-1)**:
  - **OSS Nvidia Driver**:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu
 20.04) ????????' 'Name=state,Values=available' --query 'reverse(sort_by(Images,
 &CreationDate))[:1].ImageId' --output text
```

  - **Proprietary Nvidia Driver**:

```
aws ec2 describe-images --region us-east-1 --owners amazon --filters
 'Name=name,Values=Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow
 2.16 (Ubuntu 20.04) ????????' 'Name=state,Values=available' --query
 'reverse(sort_by(Images, &CreationDate))[:1].ImageId' --output text
```

Notice

Keras version pinned to 2.0 instead of 3.0

With the latest TF2.16 release, Keras has been upgraded from major version 2 to major version 3.0. This Keras version is a complete rewrite of the Keras package (please see the Keras 3 documentation for more information). To ensure compatibility with customer workflows, we have pinned Keras versions to 2.0 using the environment variable TF_USE_LEGACY_KERAS=1 . If your workflows require usage of Keras 3.0, please remove this environment variable from your TensorFlow virtual environment /opt/tensorflow using the following script:

```
source /opt/tensorflow/bin/activate
unset TF_USE_LEGACY_KERAS
```

Release Date: 2025-02-17

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20250215
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20250215

Updated

- Updated NVIDIA Container Toolkit from version 1.17.3 to version 1.17.4
  - Please see the release notes page here for more information: https://github.com/NVIDIA/nvidia-container-toolkit/releases/tag/v1.17.4

Removed

- Removed user space libraries cuobj and nvdisasm provided by NVIDIA CUDA toolkit.

Release Date: 2025-01-20

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20250118
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20250118

Updated

- Upgraded Nvidia driver from version 550.127.05 to 550.144.03 to address CVE's present in the NVIDIA GPU Display Driver Security Bulletin for January 2025

Release Date: 2024-10-22

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20241022
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20241022

Updated

- Upgraded Nvidia driver from version 550.90.07 to 550.127.05 to address CVE's present in the NVIDIA GPU Display Security Bulletin for October 2024

Release Date: 2024-10-04

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20241004
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20240920

Updated

- Upgraded Nvidia Container Toolkit from version 1.16.1 to 1.16.2, addressing the security vulnerability CVE-2024-0133.

Release Date: 2024-09-20

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20240920
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20240920

Updated

- Upgraded Nvidia driver and Fabric Manager from version 535.183.01 to 550.90.07
- Upgraded EFA Version from 1.32.0 to 1.34.0
- Updated PyTorch version from version 2.3.0 to 2.3.1

Added

- Added support for P5e EC2 Instance on OSS Nvidia Driver Images.

Release Date: 2024-08-19

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20240816

Added

- Added support for G6e EC2 instance.

Version 2.16.2 - Release Date: 2024-07-25

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20240725

Updated

- Updated TensorFlow patch version from version 2.16.1 to 2.16.2
- Resolved TensorFlow minor version being upgraded from 2.16 to 2.17
  - Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20240717 release inadvertently contained TensorFlow minor version 2.17 rather than 2.16. Please ensure workflows reliant on TensorFlow 2.16 are upgrading to the latest DLAMI.

Version 2.16.1 - Release Date: 2024-06-06

AMI Names:

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20240606
- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) 20240606

Updated

- Updated Nvidia driver version to 535.183.01 from 535.161.08

Release Date: 2024-05-10

AMI Names:

Please refer to Important changes to DLAMI

- Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) <>

- Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) <>

Added

- Initial release of:
  - Deep Learning Proprietary Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) series.
  - Deep Learning OSS Nvidia Driver AMI GPU TensorFlow 2.16 (Ubuntu 20.04) series.
  - Software Includes the Following:
    - "nvidia-driver=535.161.08"
    - "fabric-manager=535.161.08"
    - "cuda=12.3"
    - "cudnn=8.9.7"
    - "efa=1.32.0"
    - "nccl=2.21.5"
    - "aws-nccl-ofi-plugin=v1.9.1-aws"
- Added tensorflow virtual environment (activation command source /opt/tensorflow/bin/activate). This environment includes the following:
  - "tensorflow=2.16.1"
  - NOTE
    - Starting with TF2.16, the tf.estimator API is removed.
      - To continue using tf.estimator, you will need to use TF 2.15 or an earlier version. Please see the TensorFlow 2.16.1 release notes for more information
    - To ensure compatibility with customer workflows, we have pinned Keras versions to 2.0 using the environment variable TF_USE_LEGACY_KERAS=1 . If your workflows require usage of Keras 3.0, please remove this environment variable from your TensorFlow virtual environment /opt/tensorflow using the following script:

```
source /opt/tensorflow/bin/activate
unset TF_USE_LEGACY_KERAS
```

Important NVIDIA driver changes to DLAMIs

On November 15, 2023, AWS made important changes to AWS Deep Learning AMIs (DLAMI) related to the NIVIDA driver that DLAMIs use. For information about what changed and whether it affects your usage of DLAMIs, see DLAMI NVIDIA driver change FAQs.

DLAMI NVIDIA driver change FAQs

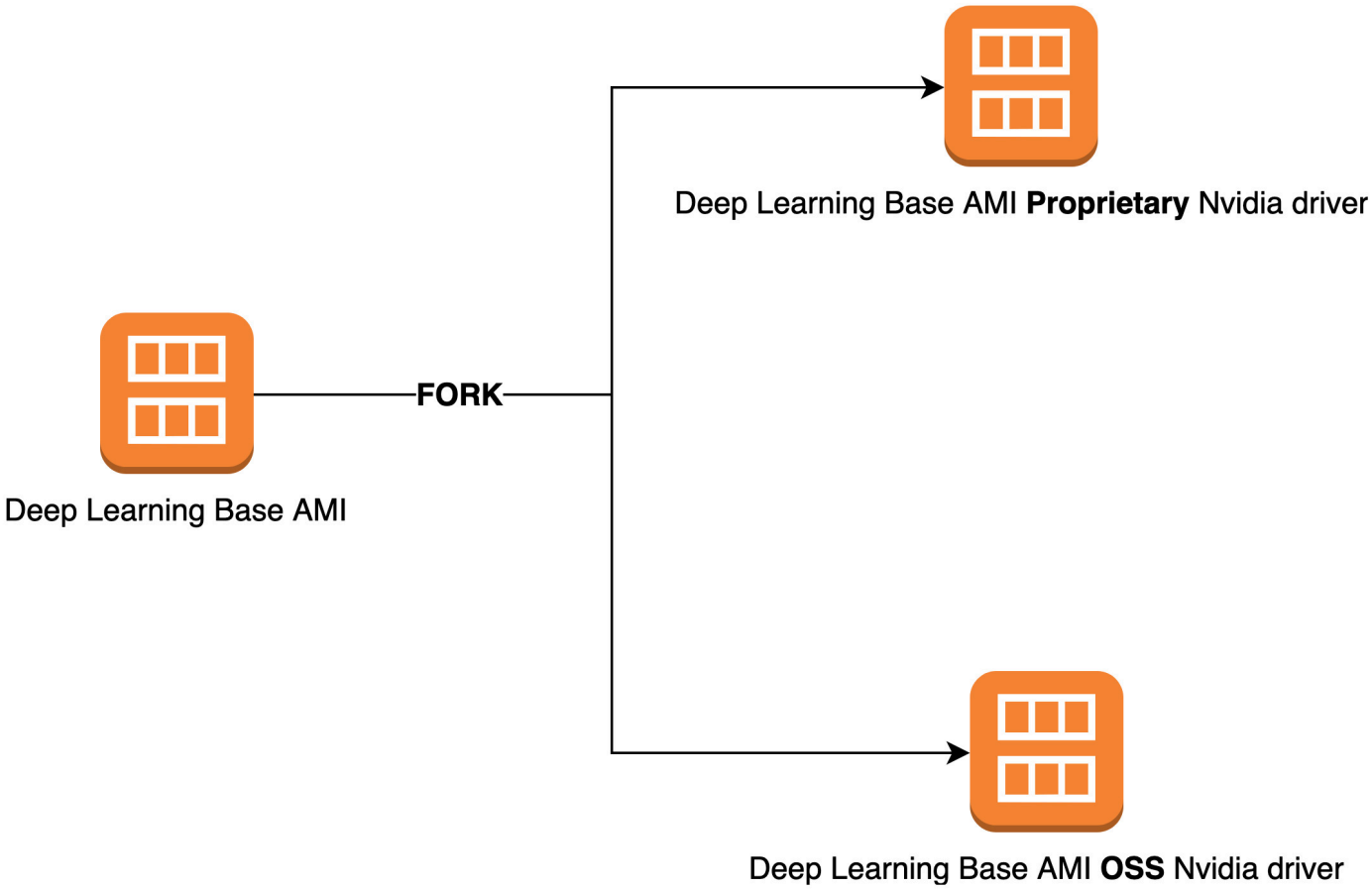
- What changed?
- Why was this change required?
- Which DLAMIs did this change affect?
- What does this mean for you?
- Is there any loss of functionality with the newer DLAMIs?
- Did this change affect Deep Learning Containers?

What changed?

We split DLAMIs into two separate groups:

- DLAMIs that use NVIDIA proprietary driver (to support P3, P3dn, G3)
- DLAMIs that use NVIDIA OSS driver (to support G4dn, G5, P4, P5)

As a result, we created new DLAMIs for each of the two categories with new names and new AMI IDs. These DLAMIs are *not* interchangeable. That is, DLAMIs from one group don't support instances that the other group supports. For example, the DLAMI that supports P5 doesn't support G3, and the DLAMI that supports G3 doesn't support P5.



Why was this change required?

Previously, DLAMIs for NVIDIA GPUs included a proprietary kernel driver from NVIDIA. However, the upstream Linux kernel community accepted a change that isolates proprietary kernel drivers, such as the NVIDIA GPU driver, from communicating with other kernel drivers. This change disables GPUDirect RDMA on P4 and P5 series instances, which is the mechanism that allows GPUs to efficiently use EFA for distributed training. As a result, DLAMIs now use OpenRM driver (NVIDIA open source driver), linked against the open source EFA drivers to support G4dn,G5, P4, and P5. However, this OpenRM driver doesn't support older instances (such as P3 and G3). Therefore, to ensure that we continue to provide current, performant, and secure DLAMIs that support both instance types, we split DLAMIs into two groups: one with the OpenRM driver (that supports G4dn, G5, P4, and P5), and one with the older proprietary driver (that supports P3, P3dn, and G3).

Which DLAMIs did this change affect?

This change affected all DLAMIs.

What does this mean for you?

All DLAMIs will continue to provide functionality, performance, and security as long as you run them on a supported Amazon Elastic Compute Cloud (Amazon EC2) instance type. To determine the EC2 instance types that a DLAMI supports, check the release notes for that DLAMI, and then look for **Supported EC2 Instances**. For a list of currently supported DLAMI options and links to their release notes, see Deep Learning AMIs Release Notes.

Additionally, you must use the correct AWS Command Line Interface (AWS CLI) commands to invoke the current DLAMIs.

For base DLAMIs that support P3, P3dn, and G3, use this command:

```
aws ec2 describe-images --region us-east-1 --owners amazon \
--filters 'Name=name,Values=Deep Learning Base Proprietary Nvidia Driver AMI (Amazon
 Linux 2) Version ??.?' 'Name=state,Values=available' \
--query 'reverse(sort_by(Images, &CreationDate))[:1].ImageId' --output text
```

For base DLAMIs that support G4dn, G5, P4, and P5, use this command:

```
aws ec2 describe-images --region us-east-1 --owners amazon \
--filters 'Name=name,Values=Deep Learning Base OSS Nvidia Driver AMI (Amazon Linux 2)
 Version ??.?' 'Name=state,Values=available' \
--query 'reverse(sort_by(Images, &CreationDate))[:1].ImageId' --output text
```

Is there any loss of functionality with the newer DLAMIs?

No, there is no loss of functionality. The current DLAMIs provide all the functionality, performance, and security of the previous DLAMIs, provided you run them on a supported EC2 instance type.

Did this change affect Deep Learning Containers?

No, this change didn't affect AWS Deep Learning Containers, because they don't include the NVIDIA driver. However, make sure to run Deep Learning Containers on AMIs that are compatible with the underlying instances.

Related information about DLAMI

You can find other resources with related information about DLAMI outside of the AWS Deep Learning AMIs Developer Guide. On AWS re:Post, check out questions about DLAMI from other customers, or ask your own questions. On the AWS Machine Learning Blog and other AWS blogs, read official posts about DLAMI.

AWS re:Post

Tag: AWS Deep Learning AMIs

AWS Blog

- AWS Machine Learning Blog | Category: AWS Deep Learning AMIs
- AWS Machine Learning Blog | Faster training with optimized TensorFlow 1.6 on Amazon EC2 C5 and P3 instances
- AWS Machine Learning Blog | New AWS Deep Learning AMIs for Machine Learning Practitioners
- AWS Partner Network (APN) Blog | New Training Courses Available: Introduction to Machine Learning & Deep Learning on AWS
- AWS News Blog | Journey into Deep Learning with AWS

Deprecated features of DLAMI

The following table lists the deprecated features of AWS Deep Learning AMIs (DLAMI), the date that we deprecated them, and details about why we deprecated them.

Feature	Date	Details
Ubuntu 16.04	10/07/2021	Ubuntu Linux 16.04 LTS reached the end of its five-year LTS window on April 30, 2021 and is no longer supported by its vendor. There are no longer updates to the Deep Learning Base AMI (Ubuntu 16.04) in new releases as of October 2021. Previous releases will continue to be available.
Amazon Linux	10/07/2021	Amazon Linux is end-of-life as of December 2020. There are no longer updates to the Deep Learning AMI (Amazon Linux) in new releases as of October 2021. Previous releases of the Deep Learning AMI (Amazon Linux) will continue to be available.
Chainer	07/01/2020	Chainer has announced the end of major releases as of December, 2019. Consequently, we will no longer include Chainer

Feature	Date	Details
		Conda environments on the DLAMI starting July 2020. Previous releases of the DLAMI that contain these environments will continue to be available . We will provide updates to these environments only if there are security fixes published by the open source community for these frameworks.
Python 3.6	06/15/2020	Due to customer requests, we are moving to Python 3.7 for new TF/MX/PT releases.
Python 2	01/01/2020	The Python open source community has officially ended support for Python 2. The TensorFlow, PyTorch, and MXNet communities have also announced that TensorFlow 1.15, TensorFlow 2.1, PyTorch 1.4, and MXNet 1.6.0 releases will be the last ones supporting Python 2.

Document history for DLAMI

The following table provides a history of recent DLAMI releases and related changes to the AWS Deep Learning AMIs Developer Guide.

Recent changes

Change	Description	Date
Using TensorFlow Serving to Train a MNIST Model	An example for using Tensorflow serving to train MNIST model.	February 14, 2025
ARM64 DLAMI	The AWS Deep Learning AMIs now supports images on Arm64 processor-based GPUs.	November 29, 2021
TensorFlow 2	The Deep Learning AMI with Conda now comes with TensorFlow 2 with CUDA 10.	December 3, 2019
AWS Inferentia	The Deep Learning AMI now supports AWS Inferenti a hardware and the AWS Neuron SDK.	December 3, 2019
Installing PyTorch from a Nightly Build	A tutorial was added that covers how you can uninstall PyTorch, then install a nightly build of PyTorch on your Deep Learning AMI with Conda.	September 25, 2018
Conda Tutorial	The example MOTD was updated to reflect a more recent release.	July 23, 2018

Earlier changes

The following table provides a history of earlier DLAMI releases and related changes prior to July 2018.

Change	Description	Date
TensorFlow with Horovod	Added a tutorial for training ImageNet with TensorFlow and Horovod.	June 6, 2018
Upgrading guide	Added the upgrading guide.	May 15, 2018
New regions and new 10 minute tutorial	New regions added: US West (N. California), South America, Canada (Central), EU (London), and EU (Paris). Also, the first release of a 10-minute tutorial titled: "Getting Started with Deep Learning AMI".	April 26, 2018
Chainer tutorial	A tutorial for using Chainer in multi-GPU, single GPU, and CPU modes was added. CUDA integration was upgraded from CUDA 8 to CUDA 9 for several frameworks.	February 28, 2018
Linux AMIs v3.0, plus introduction of MXNet Model Server, TensorFlow Serving, and TensorBoard	Added tutorials for Conda AMIs with new model and visualization serving capabilities using MXNet Model Server v0.1.5, TensorFlow Serving v1.4.0, and TensorBoard v0.4.0. AMI and framework CUDA capabilities described in Conda and CUDA overviews. Latest release notes moved to	January 25, 2018

Change	Description	Date
	https://aws.amazon.com/releasenotes/	
Linux AMIs v2.0	Base, Source, and Conda AMIs updated with NCCL 2.1. Source and Conda AMIs updated with MXNet v1.0, PyTorch 0.3.0, and Keras 2.0.9.	December 11, 2017
Two Windows AMI options added	Windows 2012 R2 and 2016 AMIs released: added to AMI selection guide and added to release notes.	November 30, 2017
Initial documentation release	Detailed description of change with link to topic/section that was changed.	November 15, 2017