



Upgrade Guide

AWS Elemental Server



Version 2.17

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AWS Elemental Server: Upgrade Guide

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This is version 2.17 of the AWS Elemental Server documentation. This is the latest version. For prior versions, see the *Previous Versions* section of [AWS Elemental Conductor File and AWS Elemental Server Documentation](#).

About This Guide

This guide is intended for engineers who upgrade the software running on the nodes of AWS Elemental Server.

The full suite of upgrade information for AWS Elemental Server is described in the table:

Deployment	Description	Information
Stand-alone deployments	AWS Elemental Server nodes are not in a cluster controlled by AWS Elemental Conductor File.	This guide.
Single Conductor cluster	AWS Elemental Server nodes in a cluster controlled by one AWS Elemental Conductor File node.	AWS Elemental Conductor File Upgrade Guide
High-availability cluster	AWS Elemental Server nodes in a cluster controlled by two AWS Elemental Conductor File nodes (a primary and a backup).	AWS Elemental Conductor File Upgrade Guide

Prerequisite Knowledge

We assume that you know how to:

- Connect to the AWS Elemental Server web interface using your web browser.
- Log in to a remote terminal (Linux) session in order to work via the command line interface.

Note

To receive assistance with your AWS Elemental appliances and software products, see the forums and other helpful tools on the [AWS Elemental Support Center](#).

Sending Commands

Tips for sending commands:

- Unless otherwise stated, enter all Linux shell commands from the home directory (/home/elemental).
- To ensure that the commands are executed regardless of your user permissions, use "sudo" to run the command as a superuser.

Upgrading to Version 2.17

Read this section to upgrade to version 2.17 of AWS Elemental Server.

This upgrade involves an upgrade to the operating system. Therefore, you can't do a regular software upgrade. Instead, you must kickstart the operating system, then perform a clean install of the AWS Elemental Server.

Topics

- [Step A: Get Ready for the Install](#)
- [Step B: Download Software](#)
- [Step C: Install \(Kickstart\) the Operating System Software](#)
- [Step D: Install the AWS Elemental Software](#)
- [Step E: Restore Copied Files](#)
- [Step F: Install the License Files](#)
- [Step G: Configure the Node](#)

Step A: Get Ready for the Install

Before You Begin

If you are upgrading a Conductor File cluster, you need to dismiss, upgrade, and restore all nodes to rebuild the cluster:

1. Before performing the final kickstart to 2.17.x from 2.16.x or 2.15.x, make backups of all necessary databases and files from all AWS Elemental Conductor File and AWS Elemental Server nodes within the cluster
2. Disable high availability (HA) and dismiss all nodes from the cluster
3. Perform the 2.17.x upgrade, including the kickstart, for each node
4. Restore the backed-up files to each node
5. Rebuild the cluster following the instructions in the [AWS Elemental Conductor File Cluster Configuration Guide](#).

Save Your Files

If you are upgrading to 2.17.x from version 2.15.x or 2.16.x, follow these steps to ensure you don't lose your data or settings. If you are upgrading from a version earlier than 2.15.x, you must first upgrade to 2.15.x and then upgrade to 2.17.x. To upgrade to version 2.15, [see the installation guide](#) for the relevant version.

Important

It is extremely important that you maintain all backups created before upgrading to 2.17.x, including database backups, configuration files, licenses, and so on. Store backup files externally, on a USB or network drive for example, and not on the local disk.

If you need to revert to a previous major version (2.16.x or below) of AWS Elemental Server, you cannot downgrade. You must do a clean installation. You can't import database backups from AWS Elemental Server 2.17.x, and you will lose any changes made after installing 2.17.x. For more information, see [AWS Elemental Server Installation Guide](#).

Procedure

1. Create a backup of the database as it exists for your current version.
 1. To initiate a manual backup through the command line, start at the Linux command line
 2. Log in with the elemental user credentials
 3. Run the following command:

```
snmpset -c elemental_snmp_write -v 2c -m ELEMENTAL-MIB localhost databaseBackup = 1
```

4. Find the database backups, including automated backups, in the following directory: /home/elemental/database_backups/
2. Locate the following files on the node, in the /home/elemental directory:

File	Description
activation_XXXX- <i><random characters></i> .key	The activation key for your license, present only if you installed software yourself.

File	Description
lic-download- <i><hostname></i> .tgz	Aggregated, compressed file with all your license files. You will either have this file, or a set of individual .lic files.
eme.lic	A license for AWS Elemental Server.
ui.lic	A license for AWS Elemental Server.
cable.lic	The license for the Cable Labs option, if installed.
Other files	Other configurations that you have created as part of your deployment.

3. Copy the database backup and all other files to a directory on another system or to a USB stick.

Use the protocol compatible with your equipment. For example:

- Use Windows Share protocol: Connect to `\\<node IP>\elemental` on a PC.
- Use Samba: Connect to `smb://<node IP>/elemental` on a Mac.

Step B: Download Software

Download the installation files for AWS Elemental Server

1. Log in to [AWS Elemental Support Center Activations](#). For detailed steps to download installation files, see [Downloading AWS Elemental Server Software](#).
2. Download your files. You need the following files:
 - A kickstart (.iso) file for creating a USB boot drive. For example, `centos-20161028T12270-production-usb.iso`.

You use this file to put a preconfigured installation of your operating system on your physical machine.

- An installation (.run) file for the AWS Elemental software itself. For example, `elemental_production_server_2.17.0.12345.run`.

Make sure you obtain the correct target—CPU-only or GPU-enhanced.

Step C: Install (Kickstart) the Operating System Software

You must install a configured operating system from an `.iso` file onto each physical machine that will be running AWS Elemental software. Doing so is referred to as “kickstarting the system”.

Make sure that you install the right version of the operating system with each piece of software. The correct `.iso` file is always provided with the `.run` file under **Activations** at [AWS Elemental Support Center Activations](#).

Create a Boot USB Drive or DVD

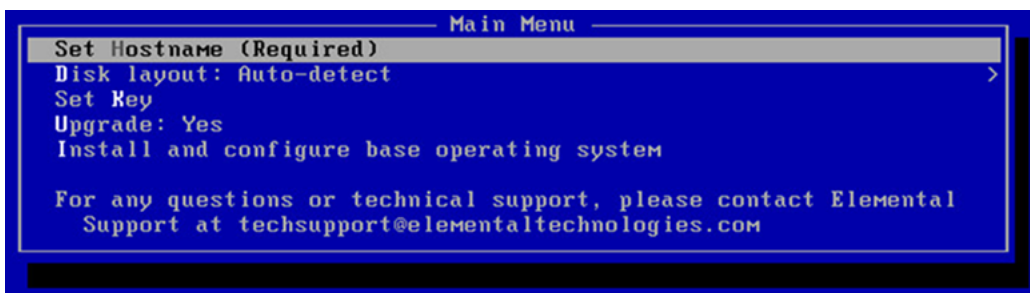
Do this from your workstation.

Use a third-party utility (such as PowerISO or ISO2USB) to create a bootable DVD or USB drive from your `.iso` file. Instructions for using these utilities can be found in the [AWS Elemental Support Center](#) knowledge base.

Install the Operating System at Each Node

Do this from each Elemental node.

1. Insert the DVD or USB thumb drive into the hardware unit.
2. Boot up or reboot the system. The installer automatically starts.



3. Use the arrow keys to select each option and do the following:

Menu Option	Instructions
Set Hostname	Change the hostname to a useful name such as server-01 or server-chicago-01 .

Menu Option	Instructions
	Do not use localhost as the hostname! Do not use periods or underscores in the hostname
Disk layout: Auto-detect	Leave this set at Auto-detect.
Set Key	Press the down arrow to skip this option.
Upgrade	Choose No . Choosing No deletes all data from the hardware unit. Never choose Yes when doing a new install.
Install and configure base operating system	Press Enter to begin the OS installation.

The operating system is installed. From now on, the system runs this customized version of your Linux operating system.

4. Repeat the above steps on each system, using the `.iso` file that goes with the AWS Elemental software you are installing on each system.

Step D: Install the AWS Elemental Software

These steps must be performed on each system where you are installing AWS Elemental software, either directly at the machine or from your workstation via SSH. Make sure that you use the `.run` file that corresponds to the `.iso` file that you used to reinstall the operating system.

1. Copy the following files to `/home/elemental/` on the node.
 - AWS Elemental Server installer file
 - The database backup file that you created when getting ready for the installation.

Here are suggestions about how to copy these files:

- Use SFTP protocol and an FTP client application on your workstation. Connect to the IP address for AWS Elemental Server on port 22 with the elemental user credentials and transfer the file.
 - Use SCP protocol and an SCP client application on your workstation. Copy the file with the elemental user credentials and transfer the file.
2. At the Linux command line, log in with the *elemental* user credentials.
 3. Run the installer as follows. Use the actual filename of your .run file, rather than the example below.

For GPU-enhanced versions of the software:

```
[elemental@hostname ~]$ sudo sh ./elemental_production_server_2.17.n.nnnnn.run -z -t --restore-db-backup <backup file>
```

For CPU-only versions of the software:

```
[elemental@hostname ~]$ sudo sh ./elemental_production_server_cpu_2.17.n.nnnnn.run -z -t --restore-db-backup <backup file>
```

4. You are prompted as described in the table below.

Prompt	Action
Do you agree to these terms?	This prompt appears after you have paged through the EULA (End User License Agreement). Enter Yes or No . (You must enter Yes to continue.)
Enter this server's Hostname	Type the hostname of this hardware unit. For example, server-01
Is eth0 a management interface?	Type Yes .
Does eth0 use DHCP to get its IP address?	Type Yes to use DHCP or type No to enter a static IP address.

Prompt	Action
	If you plan to bond eth0 and eth1 (which you will set up in a later phase), we recommend that you enter a static IP address and set up eth0, eth1, and bond0 all on the same subnet.
Enter eth0's IP address:	If you chose static, type the IP address for this hardware unit.
Enter eth0's NETMASK:	If you chose static, type the netmask for this hardware unit.
Enter eth0's Gateway (or type none):	If you chose static, type none or type the gateway for this hardware unit.
Keep this configured nameserver: 10.6.16.10?	Skip; you set up a nameserver in the next phase of configuration.
Would you like to configure eth1?	Type No ; you can configure eth1 in the next phase of the configuration.
The firewall for this system is currently disabled. Would you like to enable it?	Skip; you set up the firewall in the next phase of configuration.
Select time zone ('n' for more)	Enter the time zone you want to show on the web interface of the nodes. This setting does not affect activity via SSH or via the REST API.
Would you like to start the Elemental service now?	Type Yes .

Then the software will be installed. Finally, this message will appear:

Installation and configuration complete!

Please open a web browser and point it to `http://xxx.xxx.xxx.xxx` to get to the web interface.
Enjoy!

5. Start a web browser and start the AWS Elemental Server web interface by typing the following:

```
http://<hostname>
```

Make sure the web interface displays.

Step E: Restore Copied Files

Now that you have installed the new version of AWS Elemental Server, you can copy the rest of the files that you [backed up in an earlier step](#).

Here are suggestions about how to copy these files:

- Use SFTP protocol and an FTP client application on your workstation. Connect to the IP address for AWS Elemental Server on port 22 with the elemental user credentials and transfer the file.
- Use SCP protocol and an SCP client application on your workstation. Copy the file with the elemental user credentials and transfer the file.

Put the files in the appropriate directories. For example, put network configuration files in `/etc/sysconfig/network-scripts/`.

Step F: Install the License Files

To begin using AWS Elemental Server, you must install a valid license file on each node and start the software services.

To install licenses and start services

1. If you have not already done so, copy the license files you backed up (in [Step A](#)) to the following directory:

```
/opt/elemental_se/
```

For example, if you previously copied them back to `/home/elemental/` you would use the following command:

```
[elemental@hostname ~]$ cp /home/elemental/*.lic /opt/elemental_se/
```

- Restart the elemental and HTTP services:

```
[elemental@hostname ~]$ sudo systemctl restart elemental_se httpd
```

- If you did not backup the existing license files, follow the guidance under Step D: Set-up Licensing in [AWS Elemental Server Installation Guide](#)

Step G: Configure the Node

Now that each system has the appropriate software installed, see the following guides to complete configuration:

Scenario	Guide
AWS Elemental Server in a stand-alone configuration. AWS Elemental Server is not managed by AWS Elemental Conductor File.	AWS Elemental Server Configuration Guide
AWS Elemental Server being controlled by AWS Elemental Conductor File. In other words, AWS Elemental Server is in a Conductor File cluster.	AWS Elemental Conductor File Configuration Guide

Downgrading from Version 2.17

Downgrade from version 2.17 of AWS Elemental Server is not supported because version 2.17 runs on a different version of the CentOS or RHEL operating system. To downgrade from version 2.17, you must perform a clean install. See the instructions in [AWS Elemental Server Installation Guide](#).

Follow these recommendations:

- Downgrade back to the version that you were using before upgrading to version 2.17. Copy back the database that you should have made when you upgraded from your original version.
- If you performed a multi-step upgrade, such as from 2.13.0 to 2.15.0 and then upgraded to 2.17.x with a kickstart, you still only perform a one-step downgrade as a clean installation of your original (target) version. For example, if your original version was 2.13, you stored the database backup from 2.13 on an external system. You upgraded from version 2.13 to 2.15, exported the database from 2.15, and performed a clean installation of 2.17 while importing the 2.15 database. When you downgrade, you can go straight from version 2.17 to version 2.13. To do this, perform a clean install back to version 2.13. Then copy over the 2.13 database that you made when you upgraded from that version.

Downloading AWS Elemental Server Software

These are the detailed steps for downloading files from the [AWS Elemental Support Center](#).

1. Log in to the [AWS Elemental Support Center](#) with the email address that you used to receive your activation email and your password.
2. From the home page, click **Software and Licenses** on the right.
3. From the **Download Central Home**, choose **Your Entitlements** from the **Software & Entitlements** menu.
4. On **Your Entitlements**, your orders are listed from newest to oldest. In the **Activation Key** column, choose the link for the product that you're downloading.
5. On **Order Detail**, choose the plus sign for the package listed in the **Product Description** column to expand the order details.
6. In the expanded details, choose the product and version that you wish to download.
7. In the list of available files, choose the file you wish to download.
8. On **Product Download**, select the check box next to the file you want to download. Then click **Download Selected Files**.
9. If you are prompted to install the NetSession Interface download manager, click **download the installer** and run the executable.
10. Select a location and save the files. Note the file location for later.

Document History for Upgrade Guide

The following table describes the documentation for this release of AWS Elemental Server.

- **API version:** 2.17
- **Release notes:** [AWS Elemental Server Release Notes](#)

The following table describes the documentation for this release of AWS Elemental Server. For notification about updates to this documentation, you can subscribe to an RSS feed.

Change	Description	Date
Version 2.17 release	Changes to support the 2.17 software release.	September 29, 2021