aws

API Reference

Network Flow Monitor

API Version 2023-04-19

Network Flow Monitor: API Reference

Table of Contents

Welcome

Network Flow Monitor is a feature of Amazon CloudWatch Network Monitoring that provides visibility into the performance of network flows for your AWS workloads, between instances in subnets, as well as to and from AWS. Lightweight agents that you install on the instances capture performance metrics for your network flows, such as packet loss and latency, and send them to the Network Flow Monitor backend. Then, you can view and analyze metrics from the top contributors for each metric type, to help troubleshoot issues.

In addition, when you create a monitor, Network Flow Monitor provides a network health indicator (NHI) that informs you whether there were AWS network issues for one or more of the network flows tracked by a monitor, during a time period that you choose. By using this value, you can independently determine if the AWS network is impacting your workload during a specific time frame, to help you focus troubleshooting efforts.

To learn more about Network Flow Monitor, see the Network Flow Monitor User Guide in the Amazon CloudWatch User Guide.

This document was last published on April 17, 2026.

Actions

The following actions are supported:

- CreateMonitor
- CreateScope
- DeleteMonitor
- DeleteScope
- GetMonitor
- GetQueryResultsMonitorTopContributors
- GetQueryResultsWorkloadInsightsTopContributors
- GetQueryResultsWorkloadInsightsTopContributorsData
- GetQueryStatusMonitorTopContributors
- GetQueryStatusWorkloadInsightsTopContributors
- GetQueryStatusWorkloadInsightsTopContributorsData
- GetScope
- ListMonitors
- ListScopes
- ListTagsForResource
- StartQueryMonitorTopContributors
- StartQueryWorkloadInsightsTopContributors
- StartQueryWorkloadInsightsTopContributorsData
- StopQueryMonitorTopContributors
- StopQueryWorkloadInsightsTopContributors
- StopQueryWorkloadInsightsTopContributorsData
- TagResource
- UntagResource
- UpdateMonitor
- UpdateScope

CreateMonitor

Create a monitor for specific network flows between local and remote resources, so that you can monitor network performance for one or several of your workloads. For each monitor, Network Flow Monitor publishes detailed end-to-end performance metrics and a network health indicator (NHI) that informs you whether there were AWS network issues for one or more of the network flows tracked by a monitor, during a time period that you choose.

Request Syntax

```
POST /monitors HTTP/1.1
Content-type: application/json

{
   "clientToken": "string",
   "localResources": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "monitorName": "string",
   "remoteResources": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "scopeArn": "string",
   "tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive string of up to 64 ASCII characters that you specify to make an idempotent API request. Don't reuse the same client token for other API requests.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

localResources

The local resources to monitor. A local resource in a workload is the location of the host, or hosts, where the Network Flow Monitor agent is installed. For example, if a workload consists of an interaction between a web service and a backend database (for example, Amazon Dynamo DB), the subnet with the EC2 instance that hosts the web service, which also runs the agent, is the local resource.

Be aware that all local resources must belong to the current Region.

Type: Array of MonitorLocalResource objects

Array Members: Minimum number of 1 item.

Required: Yes

monitorName

The name of the monitor.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

remoteResources

The remote resources to monitor. A remote resource is the other endpoint in the bi-directional flow of a workload, with a local resource. For example, Amazon Dynamo DB can be a remote resource.

When you specify remote resources, be aware that specific combinations of resources are allowed and others are not, including the following constraints:

- All remote resources that you specify must all belong to a single Region.
- If you specify AWS services as remote resources, any other remote resources that you specify must be in the current Region.
- When you specify a remote resource for another Region, you can only specify the `Region` resource type. You cannot specify a subnet, VPC, or Availability Zone in another Region.
- If you leave the `RemoteResources` parameter empty, the monitor will include all network flows that terminate in the current Region.

Type: Array of MonitorRemoteResource objects

Required: No

scopeArn

The Amazon Resource Name (ARN) of the scope for the monitor.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

Required: Yes

tags

The tags for a monitor. You can add a maximum of 200 tags.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
   "createdAt": number,
   "localResources": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "modifiedAt": number,
   "monitorArn": "string",
   "monitorName": "string",
   "monitorStatus": "string",
   "remoteResources": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "tags": {
      "string" : "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

createdAt

The date and time when the monitor was created.

Type: Timestamp

localResources

The local resources to monitor. A local resource in a workload is the location of hosts where the Network Flow Monitor agent is installed.

Type: Array of MonitorLocalResource objects

modifiedAt

The last date and time that the monitor was modified.

Type: Timestamp

monitorArn

The Amazon Resource Name (ARN) of the monitor.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 512.

Pattern: `arn:.*`

monitorName

The name of the monitor.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

monitorStatus

The status of a monitor. The status can be one of the following

- `PENDING`: The monitor is in the process of being created.
- `ACTIVE`: The monitor is active.
- `INACTIVE`: The monitor is inactive.
- `ERROR`: Monitor creation failed due to an error.
- `DELETING`: The monitor is in the process of being deleted.

Type: String

Valid Values: `PENDING | ACTIVE | INACTIVE | ERROR | DELETING`

remoteResources

The remote resources to monitor. A remote resource is the other endpoint specified for the network flow of a workload, with a local resource. For example, Amazon Dynamo DB can be a remote resource.

Type: Array of MonitorRemoteResource objects

tags

The tags for a monitor.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

ConflictException

The requested resource is in use.

HTTP Status Code: 409

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateScope

In Network Flow Monitor, you specify a scope for the service to generate metrics for. By using the scope, Network Flow Monitor can generate a topology of all the resources to measure performance metrics for. When you create a scope, you enable permissions for Network Flow Monitor.

A scope is a Region-account pair or multiple Region-account pairs. Network Flow Monitor uses your scope to determine all the resources (the topology) where Network Flow Monitor will gather network flow performance metrics for you. To provide performance metrics, Network Flow Monitor uses the data that is sent by the Network Flow Monitor agents you install on the resources.

To define the Region-account pairs for your scope, the Network Flow Monitor API uses the following constucts, which allow for future flexibility in defining scopes:

- *Targets*, which are arrays of targetResources.
- *Target resources*, which are Region-targetIdentifier pairs.
- *Target identifiers*, made up of a targetID (currently always an account ID) and a targetType (currently always an account).

Request Syntax

```
POST /scopes HTTP/1.1
Content-type: application/json

{
   "clientToken": "string",
   "tags": {
      "string" : "string"
   },
   "targets": [
      {
         "region": "string",
         "targetIdentifier": {
            "targetId": { ... },
            "targetType": "string"
         }
      }
   ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive string of up to 64 ASCII characters that you specify to make an idempotent API request. Don't reuse the same client token for other API requests.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

tags

The tags for a scope. You can add a maximum of 200 tags.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

targets

The targets to define the scope to be monitored. A target is an array of targetResources, which are currently Region-account pairs, defined by targetResource constructs.

Type: Array of TargetResource objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "scopeArn": "string",
   "scopeId": "string",
   "status": "string",
   "tags": {
      "string" : "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

scopeArn

The Amazon Resource Name (ARN) of the scope.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

scopeId

The identifier for the scope that includes the resources you want to get metrics for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Type: String

status

The status for a scope. The status can be one of the following: `SUCCEEDED`, `IN_PROGRESS`, `FAILED`, `DEACTIVATING`, or `DEACTIVATED`.

A status of `DEACTIVATING` means that you've requested a scope to be deactivated and Network Flow Monitor is in the process of deactivating the scope. A status of `DEACTIVATED` means that the deactivating process is complete.

Type: String

Valid Values: `SUCCEEDED | IN_PROGRESS | FAILED | DEACTIVATING | DEACTIVATED`

tags

The tags for a scope.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

ConflictException

The requested resource is in use.

HTTP Status Code: 409

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteMonitor

Deletes a monitor in Network Flow Monitor.

Request Syntax

```
DELETE /monitors/monitorName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

monitorName

The name of the monitor to delete.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteScope

Deletes a scope that has been defined.

Request Syntax

```
DELETE /scopes/scopeId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

ConflictException

The requested resource is in use.

HTTP Status Code: 409

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetMonitor

Gets information about a monitor in Network Flow Monitor based on a monitor name. The information returned includes the Amazon Resource Name (ARN), create time, modified time, resources included in the monitor, and status information.

Request Syntax

```
GET /monitors/monitorName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

monitorName

The name of the monitor.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "createdAt": number,
   "localResources": [
      {
         "identifier": "string",
         "type": "string"
```

```
      }
   ],
   "modifiedAt": number,
   "monitorArn": "string",
   "monitorName": "string",
   "monitorStatus": "string",
   "remoteResources": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "tags": {
      "string" : "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

createdAt

The date and time when the monitor was created.

Type: Timestamp

localResources

The local resources to monitor. A local resource in a workload is the location of the hosts where the Network Flow Monitor agent is installed.

Type: Array of MonitorLocalResource objects

modifiedAt

The date and time when the monitor was last modified.

Type: Timestamp

monitorArn

The Amazon Resource Name (ARN) of the monitor.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 512.

Pattern: `arn:.*`

monitorName

The name of the monitor.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

monitorStatus

The status of a monitor. The status can be one of the following

- `PENDING`: The monitor is in the process of being created.
- `ACTIVE`: The monitor is active.
- `INACTIVE`: The monitor is inactive.
- `ERROR`: Monitor creation failed due to an error.
- `DELETING`: The monitor is in the process of being deleted.

Type: String

Valid Values: `PENDING | ACTIVE | INACTIVE | ERROR | DELETING`

remoteResources

The remote resources to monitor. A remote resource is the other endpoint specified for the network flow of a workload, with a local resource. For example, Amazon Dynamo DB can be a remote resource.

Type: Array of MonitorRemoteResource objects

tags

The tags for a monitor.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetQueryResultsMonitorTopContributors

Return the data for a query with the Network Flow Monitor query interface. You specify the query that you want to return results for by providing a query ID and a monitor name. This query returns the top contributors for a specific monitor.

Create a query ID for this call by calling the corresponding API call to start the query, `StartQueryMonitorTopContributors`. Use the scope ID that was returned for your account by `CreateScope`.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

Request Syntax

```
GET /monitors/monitorName/topContributorsQueries/queryId/results?
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

maxResults

The number of query results that you want to return with this call.

monitorName

The name of the monitor.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

nextToken

The token for the next set of results. You receive this token from a previous call.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to create a query.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "topContributors": [
      {
         "destinationCategory": "string",
         "dnatIp": "string",
         "kubernetesMetadata": {
            "localPodName": "string",
            "localPodNamespace": "string",
            "localServiceName": "string",
            "remotePodName": "string",
            "remotePodNamespace": "string",
            "remoteServiceName": "string"
         },
         "localAz": "string",
         "localInstanceArn": "string",
         "localInstanceId": "string",
         "localIp": "string",
         "localRegion": "string",
         "localSubnetArn": "string",
         "localSubnetId": "string",
         "localVpcArn": "string",
         "localVpcId": "string",
         "remoteAz": "string",
         "remoteInstanceArn": "string",
         "remoteInstanceId": "string",
```

```
            "remoteIp": "string",
            "remoteRegion": "string",
            "remoteSubnetArn": "string",
            "remoteSubnetId": "string",
            "remoteVpcArn": "string",
            "remoteVpcId": "string",
            "snatIp": "string",
            "targetPort": number,
            "traversedConstructs": [
               {
                  "componentArn": "string",
                  "componentId": "string",
                  "componentType": "string",
                  "serviceName": "string"
               }
            ],
            "value": number
         }
      ],
      "unit": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The token for the next set of results. You receive this token from a previous call.

Type: String

topContributors

The top contributor network flows overall for a specific metric type, for example, the number of retransmissions.

Type: Array of MonitorTopContributorsRow objects

unit

The units for a metric returned by the query.

Type: String

Valid Values: `Seconds | Microseconds | Milliseconds | Bytes | Kilobytes | Megabytes | Gigabytes | Terabytes | Bits | Kilobits | Megabits | Gigabits | Terabits | Percent | Count | Bytes/Second | Kilobytes/Second | Megabytes/Second | Gigabytes/Second | Terabytes/Second | Bits/Second | Kilobits/Second | Megabits/Second | Gigabits/Second | Terabits/Second | Count/Second | None`

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetQueryResultsWorkloadInsightsTopContributors

Return the data for a query with the Network Flow Monitor query interface. You specify the query that you want to return results for by providing a query ID and a monitor name.

This query returns the top contributors for a scope for workload insights. Workload insights provide a high level view of network flow performance data collected by agents. To return the data for the top contributors, see `GetQueryResultsWorkloadInsightsTopContributorsData`.

Create a query ID for this call by calling the corresponding API call to start the query, `StartQueryWorkloadInsightsTopContributors`. Use the scope ID that was returned for your account by `CreateScope`.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

Request Syntax

```
GET /workloadInsights/scopeId/topContributorsQueries/queryId/results?
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

maxResults

The number of query results that you want to return with this call.

nextToken

The token for the next set of results. You receive this token from a previous call.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to create a query.

Required: Yes

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "topContributors": [
      {
         "accountId": "string",
         "localAz": "string",
         "localRegion": "string",
         "localSubnetArn": "string",
         "localSubnetId": "string",
         "localVpcArn": "string",
         "localVpcId": "string",
         "remoteIdentifier": "string",
         "value": number
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The token for the next set of results. You receive this token from a previous call.

Type: String

topContributors

The top contributor network flows overall for a specific metric type, for example, the number of retransmissions.

Type: Array of WorkloadInsightsTopContributorsRow objects

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetQueryResultsWorkloadInsightsTopContributorsData

Return the data for a query with the Network Flow Monitor query interface. Specify the query that you want to return results for by providing a query ID and a scope ID.

This query returns the data for top contributors for workload insights for a specific scope. Workload insights provide a high level view of network flow performance data collected by agents for a scope. To return just the top contributors, see `GetQueryResultsWorkloadInsightsTopContributors`.

Create a query ID for this call by calling the corresponding API call to start the query, `StartQueryWorkloadInsightsTopContributorsData`. Use the scope ID that was returned for your account by `CreateScope`.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

The top contributor network flows overall are for a specific metric type, for example, the number of retransmissions.

Request Syntax

```
GET /workloadInsights/scopeId/topContributorsDataQueries/queryId/results?
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

maxResults

The number of query results that you want to return with this call.

nextToken

The token for the next set of results. You receive this token from a previous call.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to create a query.

Required: Yes

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "datapoints": [
      {
         "label": "string",
         "timestamps": [ "string" ],
         "values": [ number ]
      }
   ],
   "nextToken": "string",
   "unit": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

datapoints

The datapoints returned by the query.

Type: Array of WorkloadInsightsTopContributorsDataPoint objects

nextToken

The token for the next set of results. You receive this token from a previous call.

Type: String

unit

The units for a metric returned by the query.

Type: String

Valid Values: `Seconds | Microseconds | Milliseconds | Bytes | Kilobytes | Megabytes | Gigabytes | Terabytes | Bits | Kilobits | Megabits | Gigabits | Terabits | Percent | Count | Bytes/Second | Kilobytes/Second | Megabytes/Second | Gigabytes/Second | Terabytes/Second | Bits/Second | Kilobits/Second | Megabits/Second | Gigabits/Second | Terabits/Second | Count/Second | None`

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetQueryStatusMonitorTopContributors

Returns the current status of a query for the Network Flow Monitor query interface, for a specified query ID and monitor. This call returns the query status for the top contributors for a monitor.

When you create a query, use this call to check the status of the query to make sure that it has has SUCCEEDED before you review the results. Use the same query ID that you used for the corresponding API call to start (create) the query, `StartQueryMonitorTopContributors`.

When you run a query, use this call to check the status of the query to make sure that the query has SUCCEEDED before you review the results.

Request Syntax

```
GET /monitors/monitorName/topContributorsQueries/queryId/status HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

monitorName

The name of the monitor.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to start a query.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

status

When you run a query, use this call to check the status of the query to make sure that the query has SUCCEEDED before you review the results.

- QUEUED: The query is scheduled to run.
- RUNNING: The query is in progress but not complete.
- SUCCEEDED: The query completed sucessfully.
- FAILED: The query failed due to an error.
- CANCELED: The query was canceled.

Type: String

Valid Values: QUEUED | RUNNING | SUCCEEDED | FAILED | CANCELED

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetQueryStatusWorkloadInsightsTopContributors

Return the data for a query with the Network Flow Monitor query interface. Specify the query that you want to return results for by providing a query ID and a monitor name. This query returns the top contributors for workload insights.

When you start a query, use this call to check the status of the query to make sure that it has has SUCCEEDED before you review the results. Use the same query ID that you used for the corresponding API call to start the query, `StartQueryWorkloadInsightsTopContributors`.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

Request Syntax

```
GET /workloadInsights/scopeId/topContributorsQueries/queryId/status HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to start a query.

Required: Yes

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

status

When you run a query, use this call to check the status of the query to make sure that the query has SUCCEEDED before you review the results.

- QUEUED: The query is scheduled to run.
- RUNNING: The query is in progress but not complete.
- SUCCEEDED: The query completed sucessfully.
- FAILED: The query failed due to an error.
- CANCELED: The query was canceled.

Type: String

Valid Values: QUEUED | RUNNING | SUCCEEDED | FAILED | CANCELED

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetQueryStatusWorkloadInsightsTopContributorsData

Returns the current status of a query for the Network Flow Monitor query interface, for a specified query ID and monitor. This call returns the query status for the top contributors data for workload insights.

When you start a query, use this call to check the status of the query to make sure that it has has SUCCEEDED before you review the results. Use the same query ID that you used for the corresponding API call to start the query, `StartQueryWorkloadInsightsTopContributorsData`.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

The top contributor network flows overall are for a specific metric type, for example, the number of retransmissions.

Request Syntax

```
GET /workloadInsights/scopeId/topContributorsDataQueries/queryId/status HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to start a query.

Required: Yes

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account. A scope ID is returned from a `CreateScope` API call.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

status

The status of a query for top contributors data.

- QUEUED: The query is scheduled to run.
- RUNNING: The query is in progress but not complete.
- SUCCEEDED: The query completed sucessfully.
- FAILED: The query failed due to an error.
- CANCELED: The query was canceled.

Type: String

Valid Values: QUEUED | RUNNING | SUCCEEDED | FAILED | CANCELED

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetScope

Gets information about a scope, including the name, status, tags, and target details. The scope in Network Flow Monitor is an account.

Request Syntax

```
GET /scopes/scopeId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account. A scope ID is returned from a `CreateScope` API call.

Length Constraints: Minimum length of 1.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "scopeArn": "string",
   "scopeId": "string",
   "status": "string",
   "tags": {
      "string" : "string"
   },
   "targets": [
```

```
      {
         "region": "string",
         "targetIdentifier": {
            "targetId": { ... },
            "targetType": "string"
         }
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

scopeArn

The Amazon Resource Name (ARN) of the scope.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account. A scope ID is returned from a `CreateScope` API call.

Type: String

status

The status for a scope. The status can be one of the following: `SUCCEEDED`, `IN_PROGRESS`, `FAILED`, `DEACTIVATING`, or `DEACTIVATED`.

A status of `DEACTIVATING` means that you've requested a scope to be deactivated and Network Flow Monitor is in the process of deactivating the scope. A status of `DEACTIVATED` means that the deactivating process is complete.

Type: String

Valid Values: `SUCCEEDED | IN_PROGRESS | FAILED | DEACTIVATING | DEACTIVATED`

tags

The tags for a scope.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

targets

The targets to define the scope to be monitored. A target is an array of targetResources, which are currently Region-account pairs, defined by targetResource constructs.

Type: Array of TargetResource objects

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListMonitors

List all monitors in an account. Optionally, you can list only monitors that have a specific status, by using the STATUS parameter.

Request Syntax

```
GET /monitors?maxResults=maxResults&monitorStatus=monitorStatus&nextToken=nextToken
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

maxResults

The number of query results that you want to return with this call.

Valid Range: Minimum value of 1. Maximum value of 25.

monitorStatus

The status of a monitor. The status can be one of the following

- PENDING: The monitor is in the process of being created.
- ACTIVE: The monitor is active.
- INACTIVE: The monitor is inactive.
- ERROR: Monitor creation failed due to an error.
- DELETING: The monitor is in the process of being deleted.

Valid Values: PENDING | ACTIVE | INACTIVE | ERROR | DELETING

nextToken

The token for the next set of results. You receive this token from a previous call.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "monitors": [
      {
         "monitorArn": "string",
         "monitorName": "string",
         "monitorStatus": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

monitors

The monitors that are in an account.

Type: Array of MonitorSummary objects

nextToken

The token for the next set of results. You receive this token from a previous call.

Type: String

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListScopes

List all the scopes for an account.

Request Syntax

```
GET /scopes?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

maxResults

The number of query results that you want to return with this call.

Valid Range: Minimum value of 1. Maximum value of 25.

nextToken

The token for the next set of results. You receive this token from a previous call.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "scopes": [
      {
         "scopeArn": "string",
         "scopeId": "string",
         "status": "string"
      }
   ]
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The token for the next set of results. You receive this token from a previous call.

Type: String

scopes

The scopes returned by the call.

Type: Array of ScopeSummary objects

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Returns all the tags for a resource.

Request Syntax

```
GET /tags/resourceArn HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "tags": {
      "string" : "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

tags

The tags for a resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

ConflictException

The requested resource is in use.

HTTP Status Code: 409

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartQueryMonitorTopContributors

Create a query that you can use with the Network Flow Monitor query interface to return the top contributors for a monitor. Specify the monitor that you want to create the query for.

The call returns a query ID that you can use with GetQueryResultsMonitorTopContributors to run the query and return the top contributors for a specific monitor.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable APIs for the top contributors that you want to be returned.

Request Syntax

```
POST /monitors/monitorName/topContributorsQueries HTTP/1.1
Content-type: application/json

{
   "destinationCategory": "string",
   "endTime": "string",
   "limit": number,
   "metricName": "string",
   "startTime": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

monitorName

The name of the monitor.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

destinationCategory

The category that you want to query top contributors for, for a specific monitor. Destination categories can be one of the following:

- `INTRA_AZ`: Top contributor network flows within a single Availability Zone
- `INTER_AZ`: Top contributor network flows between Availability Zones
- `INTER_REGION`: Top contributor network flows between Regions (to the edge of another Region)
- `INTER_VPC`: Top contributor network flows between VPCs
- `AMAZON_S3`: Top contributor network flows to or from Amazon S3
- `AMAZON_DYNAMODB`: Top contributor network flows to or from Amazon Dynamo DB
- `UNCLASSIFIED`: Top contributor network flows that do not have a bucket classification

Type: String

Valid Values: `INTRA_AZ | INTER_AZ | INTER_VPC | UNCLASSIFIED | AMAZON_S3 | AMAZON_DYNAMODB | INTER_REGION`

Required: Yes

endTime

The timestamp that is the date and time end of the period that you want to retrieve results for with your query.

Type: Timestamp

Required: Yes

limit

The maximum number of top contributors to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

metricName

The metric that you want to query top contributors for. That is, you can specify a metric with this call and return the top contributor network flows, for that type of metric, for a monitor and (optionally) within a specific category, such as network flows between Availability Zones.

Type: String

Valid Values: `ROUND_TRIP_TIME | TIMEOUTS | RETRANSMISSIONS | DATA_TRANSFERRED`

Required: Yes

startTime

The timestamp that is the date and time that is the beginning of the period that you want to retrieve results for with your query.

Type: Timestamp

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "queryId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to start a query.

Type: String

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartQueryWorkloadInsightsTopContributors

Create a query with the Network Flow Monitor query interface that you can run to return workload insights top contributors. Specify the scope that you want to create a query for.

The call returns a query ID that you can use with GetQueryResultsWorkloadInsightsTopContributors to run the query and return the top contributors for the workload insights for a scope.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable APIs for the top contributors that you want to be returned.

Request Syntax

```
POST /workloadInsights/scopeId/topContributorsQueries HTTP/1.1
Content-type: application/json

{
   "destinationCategory": "string",
   "endTime": "string",
   "limit": number,
   "metricName": "string",
   "startTime": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account. A scope ID is returned from a `CreateScope` API call.

Required: Yes

Request Body

The request accepts the following data in JSON format.

destinationCategory

The destination category for a top contributors row. Destination categories can be one of the following:

- `INTRA_AZ`: Top contributor network flows within a single Availability Zone
- `INTER_AZ`: Top contributor network flows between Availability Zones
- `INTER_REGION`: Top contributor network flows between Regions (to the edge of another Region)
- `INTER_VPC`: Top contributor network flows between VPCs
- `AWS_SERVICES`: Top contributor network flows to or from AWS services
- `UNCLASSIFIED`: Top contributor network flows that do not have a bucket classification

Type: String

Valid Values: `INTRA_AZ | INTER_AZ | INTER_VPC | UNCLASSIFIED | AMAZON_S3 | AMAZON_DYNAMODB | INTER_REGION`

Required: Yes

endTime

The timestamp that is the date and time end of the period that you want to retrieve results for with your query.

Type: Timestamp

Required: Yes

limit

The maximum number of top contributors to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

metricName

The metric that you want to query top contributors for. That is, you can specify this metric to return the top contributor network flows, for this type of metric, for a monitor and (optionally) within a specific category, such as network flows between Availability Zones.

Type: String

Valid Values: `TIMEOUTS | RETRANSMISSIONS | DATA_TRANSFERRED`

Required: Yes

startTime

The timestamp that is the date and time that is the beginning of the period that you want to retrieve results for with your query.

Type: Timestamp

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "queryId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to start a query.

Type: String

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartQueryWorkloadInsightsTopContributorsData

Create a query with the Network Flow Monitor query interface that you can run to return data for workload insights top contributors. Specify the scope that you want to create a query for.

The call returns a query ID that you can use with GetQueryResultsWorkloadInsightsTopContributorsData to run the query and return the data for the top contributors for the workload insights for a scope.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

Request Syntax

```
POST /workloadInsights/scopeId/topContributorsDataQueries HTTP/1.1
Content-type: application/json

{
   "destinationCategory": "string",
   "endTime": "string",
   "metricName": "string",
   "startTime": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Required: Yes

Request Body

The request accepts the following data in JSON format.

destinationCategory

The destination category for a top contributors. Destination categories can be one of the following:

- `INTRA_AZ`: Top contributor network flows within a single Availability Zone
- `INTER_AZ`: Top contributor network flows between Availability Zones
- `INTER_REGION`: Top contributor network flows between Regions (to the edge of another Region)
- `INTER_VPC`: Top contributor network flows between VPCs
- `AWS_SERVICES`: Top contributor network flows to or from AWS services
- `UNCLASSIFIED`: Top contributor network flows that do not have a bucket classification

Type: String

Valid Values: `INTRA_AZ | INTER_AZ | INTER_VPC | UNCLASSIFIED | AMAZON_S3 | AMAZON_DYNAMODB | INTER_REGION`

Required: Yes

endTime

The timestamp that is the date and time end of the period that you want to retrieve results for with your query.

Type: Timestamp

Required: Yes

metricName

The metric that you want to query top contributors for. That is, you can specify this metric to return the top contributor network flows, for this type of metric, for a monitor and (optionally) within a specific category, such as network flows between Availability Zones.

Type: String

Valid Values: `TIMEOUTS | RETRANSMISSIONS | DATA_TRANSFERRED`

Required: Yes

startTime

The timestamp that is the date and time that is the beginning of the period that you want to retrieve results for with your query.

Type: Timestamp

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "queryId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to start a query.

Type: String

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StopQueryMonitorTopContributors

Stop a top contributors query for a monitor. Specify the query that you want to stop by providing a query ID and a monitor name.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

Request Syntax

```
DELETE /monitors/monitorName/topContributorsQueries/queryId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

monitorName

The name of the monitor.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to create a query.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StopQueryWorkloadInsightsTopContributors

Stop a top contributors query for workload insights. Specify the query that you want to stop by providing a query ID and a scope ID.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

Request Syntax

```
DELETE /workloadInsights/scopeId/topContributorsQueries/queryId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to create a query.

Required: Yes

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StopQueryWorkloadInsightsTopContributorsData

Stop a top contributors data query for workload insights. Specify the query that you want to stop by providing a query ID and a scope ID.

Top contributors in Network Flow Monitor are network flows with the highest values for a specific metric type. Top contributors can be across all workload insights, for a given scope, or for a specific monitor. Use the applicable call for the top contributors that you want to be returned.

Request Syntax

```
DELETE /workloadInsights/scopeId/topContributorsDataQueries/queryId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

queryId

The identifier for the query. A query ID is an internally-generated identifier for a specific query returned from an API call to create a query.

Required: Yes

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Adds a tag to a resource.

Request Syntax

```
POST /tags/resourceArn HTTP/1.1
Content-type: application/json

{
   "tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

Required: Yes

Request Body

The request accepts the following data in JSON format.

tags

The tags for a resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

ConflictException

The requested resource is in use.

HTTP Status Code: 409

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Removes a tag from a resource.

Request Syntax

```
DELETE /tags/resourceArn?tagKeys=tagKeys HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

Required: Yes

tagKeys

Keys that you specified when you tagged a resource.

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

ConflictException

The requested resource is in use.

HTTP Status Code: 409

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateMonitor

Update a monitor to add or remove local or remote resources.

Request Syntax

```
PATCH /monitors/monitorName HTTP/1.1
Content-type: application/json

{
   "clientToken": "string",
   "localResourcesToAdd": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "localResourcesToRemove": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "remoteResourcesToAdd": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "remoteResourcesToRemove": [
      {
         "identifier": "string",
         "type": "string"
      }
   ]
}
```

URI Request Parameters

The request uses the following URI parameters.

monitorName

The name of the monitor.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive string of up to 64 ASCII characters that you specify to make an idempotent API request. Don't reuse the same client token for other API requests.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

localResourcesToAdd

Additional local resources to specify network flows for a monitor, as an array of resources with identifiers and types. A local resource in a workload is the location of hosts where the Network Flow Monitor agent is installed.

Type: Array of MonitorLocalResource objects

Required: No

localResourcesToRemove

The local resources to remove, as an array of resources with identifiers and types.

Type: Array of MonitorLocalResource objects

Required: No

remoteResourcesToAdd

The remote resources to add, as an array of resources with identifiers and types.

A remote resource is the other endpoint in the flow of a workload, with a local resource. For example, Amazon Dynamo DB can be a remote resource.

Type: Array of MonitorRemoteResource objects

Required: No

remoteResourcesToRemove

The remote resources to remove, as an array of resources with identifiers and types.

A remote resource is the other endpoint specified for the network flow of a workload, with a local resource. For example, Amazon Dynamo DB can be a remote resource.

Type: Array of MonitorRemoteResource objects

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "createdAt": number,
   "localResources": [
      {
         "identifier": "string",
         "type": "string"
      }
   ],
   "modifiedAt": number,
   "monitorArn": "string",
   "monitorName": "string",
   "monitorStatus": "string",
   "remoteResources": [
      {
         "identifier": "string",
         "type": "string"
```

```
      }
   ],
   "tags": {
      "string" : "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

createdAt

The date and time when the monitor was created.

Type: Timestamp

localResources

The local resources to monitor. A local resource in a workload is the location of hosts where the Network Flow Monitor agent is installed.

Type: Array of MonitorLocalResource objects

modifiedAt

The last date and time that the monitor was modified.

Type: Timestamp

monitorArn

The Amazon Resource Name (ARN) of the monitor.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 512.

Pattern: `arn:.*`

monitorName

The name of the monitor.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

monitorStatus

The status of a monitor. The status can be one of the following

- `PENDING`: The monitor is in the process of being created.
- `ACTIVE`: The monitor is active.
- `INACTIVE`: The monitor is inactive.
- `ERROR`: Monitor creation failed due to an error.
- `DELETING`: The monitor is in the process of being deleted.

Type: String

Valid Values: `PENDING | ACTIVE | INACTIVE | ERROR | DELETING`

remoteResources

The remote resources updated for a monitor, as an array of resources with identifiers and types.

A remote resource is the other endpoint specified for the network flow of a workload, with a local resource. For example, Amazon Dynamo DB can be a remote resource.

Type: Array of MonitorRemoteResource objects

tags

The tags for a monitor.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateScope

Update a scope to add or remove resources that you want to be available for Network Flow Monitor to generate metrics for, when you have active agents on those resources sending metrics reports to the Network Flow Monitor backend.

Request Syntax

```
PATCH /scopes/scopeId HTTP/1.1
Content-type: application/json

{
   "resourcesToAdd": [
      {
         "region": "string",
         "targetIdentifier": {
            "targetId": { ... },
            "targetType": "string"
         }
      }
   ],
   "resourcesToDelete": [
      {
         "region": "string",
         "targetIdentifier": {
            "targetId": { ... },
            "targetType": "string"
         }
      }
   ]
}
```

URI Request Parameters

The request uses the following URI parameters.

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Required: Yes

Request Body

The request accepts the following data in JSON format.

resourcesToAdd

A list of resources to add to a scope.

Type: Array of TargetResource objects

Array Members: Minimum number of 1 item. Maximum number of 99 items.

Required: No

resourcesToDelete

A list of resources to delete from a scope.

Type: Array of TargetResource objects

Array Members: Minimum number of 1 item. Maximum number of 99 items.

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "scopeArn": "string",
   "scopeId": "string",
   "status": "string",
   "tags": {
      "string" : "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

scopeArn

The Amazon Resource Name (ARN) of the scope.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

scopeId

The identifier for the scope that includes the resources you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for a specific root account.

Type: String

status

The status for a scope. The status can be one of the following: `SUCCEEDED`, `IN_PROGRESS`, `FAILED`, `DEACTIVATING`, or `DEACTIVATED`.

A status of `DEACTIVATING` means that you've requested a scope to be deactivated and Network Flow Monitor is in the process of deactivating the scope. A status of `DEACTIVATED` means that the deactivating process is complete.

Type: String

Valid Values: `SUCCEEDED | IN_PROGRESS | FAILED | DEACTIVATING | DEACTIVATED`

tags

The tags for a scope.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient permission to perform this action.

HTTP Status Code: 403

ConflictException

The requested resource is in use.

HTTP Status Code: 409

InternalServerException

An internal error occurred.

HTTP Status Code: 500

ResourceNotFoundException

The request specifies a resource that doesn't exist.

HTTP Status Code: 404

ServiceQuotaExceededException

The request exceeded a service quota.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

Invalid request.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

The Network Flow Monitor API contains several data types that various actions use. This section describes each data type in detail.

> **Note**
>
> The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- KubernetesMetadata
- MonitorLocalResource
- MonitorRemoteResource
- MonitorSummary
- MonitorTopContributorsRow
- ScopeSummary
- TargetId
- TargetIdentifier
- TargetResource
- TraversedComponent
- WorkloadInsightsTopContributorsDataPoint
- WorkloadInsightsTopContributorsRow

KubernetesMetadata

Meta data about Kubernetes resources.

Contents

localPodName

The name of the pod for a local resource.

Type: String

Required: No

localPodNamespace

The namespace of the pod for a local resource.

Type: String

Required: No

localServiceName

The service name for a local resource.

Type: String

Required: No

remotePodName

The name of the pod for a remote resource.

Type: String

Required: No

remotePodNamespace

The namespace of the pod for a remote resource.

Type: String

Required: No

remoteServiceName

The service name for a remote resource.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MonitorLocalResource

A local resource is the host where the agent is installed. Local resources can be a a subnet, a VPC, an Availability Zone, an EKS cluster or an AWS Region.

Contents

identifier

The identifier of the local resource. The values you can specify are the following:

- For a VPC, subnet or EKS cluster, this identifier is the VPC Amazon Resource Name (ARN), subnet ARN or cluster ARN.
- For an Availability Zone, this identifier is the AZ name, for example, us-west-2b.
- For a Region, this identifier is the Region name, for example, us-west-2.

Type: String

Required: Yes

type

The type of the local resource. Valid values are `AWS::EC2::VPC` `AWS::AvailabilityZone`, `AWS::EC2::Subnet`, `AWS::EKS::Cluster`, or `AWS::Region`.

Type: String

Valid Values: `AWS::EC2::VPC | AWS::AvailabilityZone | AWS::EC2::Subnet | AWS::Region`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MonitorRemoteResource

A remote resource is the other endpoint in a network flow. That is, one endpoint is the local resource and the other is the remote resource. The values you can specify are the following:

- For a VPC or subnet, this identifier is the VPC Amazon Resource Name (ARN) or subnet ARN.
- For a service, this identifier is one of the following strings: S3 or DynamoDB.
- For an Availability Zone, this identifier is the AZ name, for example, us-west-2b.
- For a Region, this identifier is the Region name, for example, us-west-2.

When a remote resource is an AWS Region, Network Flow Monitor provides network performance measurements up to the edge of the Region that you specify.

Contents

identifier

The identifier of the remote resource. For a VPC or subnet, this identifier is the VPC Amazon Resource Name (ARN) or subnet ARN. For an Availability Zone, this identifier is the AZ name, for example, us-west-2b. For an AWS Region , this identifier is the Region name, for example, us-west-2.

Type: String

Required: Yes

type

The type of the remote resource. Valid values are `AWS::EC2::VPC` `AWS::AvailabilityZone`, `AWS::EC2::Subnet`, `AWS::AWSService`, or `AWS::Region`.

Type: String

Valid Values: `AWS::EC2::VPC | AWS::AvailabilityZone | AWS::EC2::Subnet | AWS::AWSService | AWS::Region`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MonitorSummary

A summary of information about a monitor, including the ARN, the name, and the status.

Contents

monitorArn

The Amazon Resource Name (ARN) of the monitor.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 512.

Pattern: `arn:.*`

Required: Yes

monitorName

The name of the monitor.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9_.-]+`

Required: Yes

monitorStatus

The status of a monitor. The status can be one of the following

- `PENDING`: The monitor is in the process of being created.
- `ACTIVE`: The monitor is active.
- `INACTIVE`: The monitor is inactive.
- `ERROR`: Monitor creation failed due to an error.
- `DELETING`: The monitor is in the process of being deleted.

Type: String

Valid Values: `PENDING | ACTIVE | INACTIVE | ERROR | DELETING`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MonitorTopContributorsRow

A set of information for a top contributor network flow in a monitor. In a monitor, Network Flow Monitor returns information about the network flows for top contributors for each metric. Top contributors are network flows with the top values for each metric type.

Contents

destinationCategory

The destination category for a top contributors row. Destination categories can be one of the following:

- `INTRA_AZ`: Top contributor network flows within a single Availability Zone
- `INTER_AZ`: Top contributor network flows between Availability Zones
- `INTER_REGION`: Top contributor network flows between Regions (to the edge of another Region)
- `INTER_VPC`: Top contributor network flows between VPCs
- `AWS_SERVICES`: Top contributor network flows to or from AWS services
- `UNCLASSIFIED`: Top contributor network flows that do not have a bucket classification

Type: String

Valid Values: `INTRA_AZ | INTER_AZ | INTER_VPC | UNCLASSIFIED | AMAZON_S3 | AMAZON_DYNAMODB | INTER_REGION`

Required: No

dnatIp

The destination network address translation (DNAT) IP address for a top contributor network flow.

Type: String

Required: No

kubernetesMetadata

Meta data about Kubernetes resources.

Type: KubernetesMetadata object

Required: No

localAz

The Availability Zone for the local resource for a top contributor network flow.

Type: String

Required: No

localInstanceArn

The Amazon Resource Name (ARN) of a local resource.

Type: String

Required: No

localInstanceId

The instance identifier for the local resource for a top contributor network flow.

Type: String

Pattern: `i-[a-zA-Z0-9]{8,32}`

Required: No

localIp

The IP address of the local resource for a top contributor network flow.

Type: String

Required: No

localRegion

The AWS Region for the local resource for a top contributor network flow.

Type: String

Required: No

localSubnetArn

The Amazon Resource Name (ARN) of a local subnet.

Type: String

Required: No

localSubnetId

The subnet ID for the local resource for a top contributor network flow.

Type: String

Pattern: `subnet-[a-zA-Z0-9]{8,32}`

Required: No

localVpcArn

The Amazon Resource Name (ARN) of a local VPC.

Type: String

Required: No

localVpcId

The VPC ID for a top contributor network flow for the local resource.

Type: String

Pattern: `vpc-[a-zA-Z0-9]{8,32}`

Required: No

remoteAz

The Availability Zone for the remote resource for a top contributor network flow.

Type: String

Required: No

remoteInstanceArn

The Amazon Resource Name (ARN) of a remote resource.

Type: String

Required: No

remoteInstanceId

The instance identifier for the remote resource for a top contributor network flow.

Type: String

Pattern: `i-[a-zA-Z0-9]{8,32}`

Required: No

remoteIp

The IP address of the remote resource for a top contributor network flow.

Type: String

Required: No

remoteRegion

The AWS Region for the remote resource for a top contributor network flow.

Type: String

Required: No

remoteSubnetArn

The Amazon Resource Name (ARN) of a remote subnet.

Type: String

Required: No

remoteSubnetId

The subnet ID for the remote resource for a top contributor network flow.

Type: String

Pattern: `subnet-[a-zA-Z0-9]{8,32}`

Required: No

remoteVpcArn

The Amazon Resource Name (ARN) of a remote VPC.

Type: String

Required: No

remoteVpcId

The VPC ID for a top contributor network flow for the remote resource.

Type: String

Pattern: `vpc-[a-zA-Z0-9]{8,32}`

Required: No

snatIp

The secure network address translation (SNAT) IP address for a top contributor network flow.

Type: String

Required: No

targetPort

The target port.

Type: Integer

Required: No

traversedConstructs

The constructs traversed by a network flow.

Type: Array of TraversedComponent objects

Required: No

value

The value of the metric for a top contributor network flow.

Type: Long

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ScopeSummary

A summary of information about a scope, including the ARN, target ID, and AWS Region.

Contents

scopeArn

The Amazon Resource Name (ARN) of the scope.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

Required: Yes

scopeId

The identifier for the scope that includes the resources that you want to get data results for. A scope ID is an internally-generated identifier that includes all the resources for the accounts in a scope.

Type: String

Required: Yes

status

The status for a scope. The status can be one of the following: `SUCCEEDED`, `IN_PROGRESS`, `FAILED`, `DEACTIVATING`, or `DEACTIVATED`.

A status of `DEACTIVATING` means that you've requested a scope to be deactivated and Network Flow Monitor is in the process of deactivating the scope. A status of `DEACTIVATED` means that the deactivating process is complete.

Type: String

Valid Values: `SUCCEEDED | IN_PROGRESS | FAILED | DEACTIVATING | DEACTIVATED`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TargetId

A target ID is an internally-generated identifier for a target. A target allows you to identify all the resources in a Network Flow Monitor scope. Currently, a target is always an AWS account.

Contents

> **Important**
>
> This data type is a UNION, so only one of the following members can be specified when used or returned.

accountId

The identifier for the account for a target.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 12.

Pattern: `[0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TargetIdentifier

A target identifier is a pair of identifying information for a scope that is included in a target. A target identifier is made up of a target ID and a target type. Currently the target ID is always an account ID and the target type is always ACCOUNT.

Contents

targetId

The identifier for a target, which is currently always an account ID .

Type: TargetId object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

targetType

The type of a target. A target type is currently always ACCOUNT.

Type: String

Valid Values: ACCOUNT

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TargetResource

A target resource in a scope. The resource is identified by a Region and an account, defined by a target identifier. A target identifier is made up of a target ID (currently always an account ID) and a target type (currently always ACCOUNT).

Contents

region

The AWS Region for the scope.

Type: String

Required: Yes

targetIdentifier

A target identifier is a pair of identifying information for a scope. A target identifier is made up of a targetID (currently always an account ID) and a targetType (currently always an account).

Type: TargetIdentifier object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TraversedComponent

A section of the network that a network flow has traveled through.

Contents

componentArn

The Amazon Resource Name (ARN) of a traversed component.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:.*`

Required: No

componentId

The identifier for the traversed component.

Type: String

Required: No

componentType

The type of component that was traversed.

Type: String

Required: No

serviceName

The service name for the traversed component.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

WorkloadInsightsTopContributorsDataPoint

A data point for a top contributor network flow in a scope. Network Flow Monitor returns information about the network flows with the top values for each metric type, which are called top contributors.

Contents

label

The label identifying the data point.

Type: String

Required: Yes

timestamps

An array of the timestamps for the data point.

Type: Array of timestamps

Required: Yes

values

The values for the data point.

Type: Array of doubles

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

WorkloadInsightsTopContributorsRow

A row for a top contributor for a scope.

Contents

accountId

The account ID for a specific row of data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 12.

Pattern: `[0-9]{12}`

Required: No

localAz

The identifier for the Availability Zone where the local resource is located.

Type: String

Required: No

localRegion

The AWS Region where the local resource is located.

Type: String

Required: No

localSubnetArn

The Amazon Resource Name (ARN) of a local subnet.

Type: String

Required: No

localSubnetId

The subnet identifier for the local resource.

Type: String

Pattern: `subnet-[a-zA-Z0-9]{8,32}`

Required: No

localVpcArn

The Amazon Resource Name (ARN) of a local VPC.

Type: String

Required: No

localVpcId

The identifier for the VPC for the local resource.

Type: String

Pattern: `vpc-[a-zA-Z0-9]{8,32}`

Required: No

remoteIdentifier

The identifier of a remote resource. For a VPC or subnet, this identifier is the VPC Amazon Resource Name (ARN) or subnet ARN. For an Availability Zone, this identifier is the AZ name, for example, us-west-2b. For an AWS Region , this identifier is the Region name, for example, us-west-2.

Type: String

Required: No

value

The value for a metric.

Type: Long

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signing AWS API requests in the *IAM User Guide*.

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Elements of an AWS API request signature in the *IAM User Guide*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Error Types

This section lists common error types that this AWS service may return. Not all services return all error types listed here. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You don't have permission to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 403

ExpiredTokenException

The security token included in the request has expired. Request a new security token and try again.

HTTP Status Code: 403

IncompleteSignature

The request signature doesn't conform to AWS standards. Verify that you're using valid AWS credentials and that your request is properly formatted. If you're using an SDK, ensure it's up to date.

HTTP Status Code: 403

InternalFailure

The request can't be processed right now because of an internal server issue. Try again later. If the problem persists, contact AWS Support.

HTTP Status Code: 500

MalformedHttpRequestException

The request body can't be processed. This typically happens when the request body can't be decompressed using the specified content encoding algorithm. Verify that the content encoding header matches the compression format used.

HTTP Status Code: 400

NotAuthorized

You don't have permissions to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 401

OptInRequired

Your AWS account needs a subscription for this service. Verify that you've enabled the service in your account.

HTTP Status Code: 403

RequestAbortedException

The request was aborted before a response could be returned. This typically happens when the client closes the connection.

HTTP Status Code: 400

RequestEntityTooLargeException

The request entity is too large. Reduce the size of the request body and try again.

HTTP Status Code: 413

RequestTimeoutException

The request timed out. The server didn't receive the complete request within the expected time frame. Try again.

HTTP Status Code: 408

ServiceUnavailable

The service is temporarily unavailable. Try again later.

HTTP Status Code: 503

ThrottlingException

Your request rate is too high. The AWS SDKs automatically retry requests that receive this exception. Reduce the frequency of requests.

HTTP Status Code: 400

UnknownOperationException

The action or operation isn't recognized. Verify that the action name is spelled correctly and that it's supported by the API version you're using.

HTTP Status Code: 404

UnrecognizedClientException

The X.509 certificate or AWS access key ID you provided doesn't exist in our records. Verify that you're using valid credentials and that they haven't expired.

HTTP Status Code: 403

ValidationError

The input doesn't meet the required format or constraints. Check that all required parameters are included and that values are valid.

HTTP Status Code: 400