aws

Amazon MSK API Reference

Amazon Managed Streaming for Apache Kafka

Amazon Managed Streaming for Apache Kafka: Amazon MSK API Reference

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Amazon Managed Streaming for Apache Kafka API Reference

Amazon Managed Streaming for Apache Kafka (Amazon MSK) is a fully managed service that makes it easy for you to build and run applications that use Apache Kafka to process streaming data.

Amazon MSK provides the control-plane operations and lets you use Apache Kafka data-plane operations, such as producing and consuming data. It runs open-source versions of Apache Kafka, so existing applications, tooling, and plugins from partners and the Apache Kafka community are supported without requiring changes to application code.

For more information about Amazon MSK, see the *Amazon MSK Developer Guide*.

MSK Replicator API

For information about MSK Replicator APIs, see the Amazon MSK Replicator API Reference.

Operations

The Amazon Managed Streaming for Apache Kafka REST API includes the following operations.

- BatchAssociateScramSecret

  Associates a list of SCRAM secrets with a cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using sign-in credentials. You can associate up to 10 secrets with a cluster at a time.

- BatchDisassociateScramSecret

  Disassociates a list of SCRAM secrets from a cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using sign-in credentials. You can disassociate up to 10 secrets from a cluster at a time.

- CreateCluster

  Creates a new MSK cluster. The following Python 3.6 examples shows how you can create a cluster that's distributed over two Availability Zones. Before you run this Python script, replace the example subnet and security-group IDs with the IDs of your subnets and security group. When you create an MSK cluster, its brokers get evenly distributed over a number of Availability Zones that's equal to the number of subnets that you specify in the `BrokerNodeGroupInfo` parameter. In this example, you can add a third subnet to get a cluster that's distributed over three Availability Zones.

```
import boto3

client = boto3.client('kafka')

response = client.create_cluster(
    BrokerNodeGroupInfo={
        'BrokerAZDistribution': 'DEFAULT',
        'ClientSubnets': [
            'subnet-012345678901fedcba',
            'subnet-9876543210abcdef01'
        ],
        'InstanceType': 'kafka.m5.large',
        'SecurityGroups': [
            'sg-012345abcdef789789'
        ]
```

```
        },
        ClusterName='SalesCluster',
        EncryptionInfo={
            'EncryptionInTransit': {
                'ClientBroker': 'TLS_PLAINTEXT',
                'InCluster': True
            }
        },
        EnhancedMonitoring='PER_TOPIC_PER_BROKER',
        KafkaVersion='2.2.1',
        NumberOfBrokerNodes=2
)

print(response)
```

- [CreateConfiguration](#)

  Creates a new MSK configuration. To see an example of how to use this operation, first save the following text to a file and name the file `config-file.txt`.

  ```
  auto.create.topics.enable = true

  zookeeper.connection.timeout.ms = 1000

  log.roll.ms = 604800000
  ```

  Now run the following Python 3.6 script in the folder where you saved `config-file.txt`. This script uses the properties specified in `config-file.txt` to create a configuration named `SalesClusterConfiguration`. This configuration can work with Apache Kafka versions 1.1.1 and 2.1.0.

  ```
  import boto3

  client = boto3.client('kafka')

  config_file = open('config-file.txt', 'r')

  server_properties = config_file.read()

  response = client.create_configuration(
      Name='SalesClusterConfiguration',
      Description='The configuration to use on all sales clusters.',
  ```

```
    KafkaVersions=['1.1.1', '2.1.0'],
    ServerProperties=server_properties
)

print(response)
```

- CreateVpcConnection

  Create remote VPC connection.

- DeleteCluster

  Deletes the MSK cluster specified by the Amazon Resource Name (ARN) in the request, and all its
  revisions.

- DeleteClusterPolicy

  Delete cluster policy.

- DeleteConfiguration

  Deletes a cluster configuration and all its revisions.

- DeleteVpcConnection

  Delete remote VPC connection.

- DescribeCluster

  Returns a description of the MSK cluster whose Amazon Resource Name (ARN) is specified in
  the request. The following is a Python 3.6 example of how to use this operation. Before you
  run this Python script, replace the example cluster Amazon Resource Name (ARN) with the ARN
  of the cluster you want to describe. If you don't know the ARN of the cluster, you can use the
  `ListClusters` operation to list all the clusters and see their ARNs and full descriptions.

```
import boto3

client = boto3.client('kafka')

response = client.describe_cluster(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4'
)

print(response)
```

Note that the response to this operation only includes the `ZookeeperConnectStringTls` node in clusters created with Apache Kafka version 2.5.1 and later.

- DescribeClusterOperation

  Returns a description of the cluster operation specified by the Amazon Resource Name (ARN).

- DescribeConfiguration

  Returns a description of this MSK configuration.

- DescribeConfigurationRevision

  Returns a description of this revision of the configuration.

- DescribeVpcConnection

  Describes Remote VPC Connection.

- GetBootstrapBrokers

  A list of brokers that a client can use to bootstrap. This list doesn't necessarily include all of the brokers in the cluster. The following Python 3.6 example shows how you can use the Amazon Resource Name (ARN) of a cluster to get its bootstrap brokers. If you don't know the ARN of your cluster, you can use the `ListClusters` operation to get the ARNs of all the clusters in this account and Region.

```
import boto3

client = boto3.client('kafka')

response = client.get_bootstrap_brokers(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
)

print(response['BootstrapBrokerString'])
```

- GetClusterPolicy

  Get cluster policy.

- GetCompatibleKafkaVersions

  Returns a list of the Apache Kafka versions to which you can update this cluster.

- **ListClientVpcConnections**

  List client VPC connections.

- **ListClusterHealthAlertsResources**

- **ListClusterOperations**

  Returns a list of all the operations that have been performed on the specified MSK cluster.

- **ListClusters**

  Returns a list of all the MSK clusters.

- **ListConfigurationRevisions**

  Returns a list of all the revisions of an MSK configuration.

- **ListConfigurations**

  Returns a list of all the MSK configurations.

- **ListKafkaVersions**

  Returns the Apache Kafka version objects.

- **ListNodes**

  Returns a list of the broker nodes in the cluster. The following Python 3.6 example first lists one node of a cluster. Because the cluster has more nodes, the response contains a token that the script then uses to list the remaining nodes.

```
import boto3

client = boto3.client('kafka')

list_nodes_response = client.list_nodes(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
    MaxResults=1
)

print('\n')
print('Here is the first node in the list:')
print('\n')
print(list_nodes_response['NodeInfoList'])
```

```
next_token = list_nodes_response['NextToken']

list_nodes_response = client.list_nodes(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
    NextToken=next_token
)


print('\n')
print('Here are the remaining nodes in the list:')
print('\n')
print(list_nodes_response['NodeInfoList'])
```

- ListScramSecrets

  Returns a list of SCRAM secrets associated with the cluster. SCRAM secrets are stored in the
  Amazon Secrets Manager service, and are used to authenticate clients using sign-in credentials.

- ListTagsForResource

  Returns a list of the tags associated with the specified resource.

- ListVpcConnections

  Lists all VPC connections.

- PutClusterPolicy

  Create or update cluster policy.

- RebootBroker

  Reboots a broker. In a given cluster, you can reboot one broker at a time.

  To reboot a broker, wait for the cluster status to be ACTIVE. This operation returns an error if
  you invoke it while the cluster status is HEALING. You must wait for the status to change from
  HEALING to ACTIVE before you reboot the broker.

- RejectClientVpcConnection

  Reject client VPC connection.

- TagResource

  Adds tags to the specified MSK resource.

- UntagResource

Removes the tags associated with the keys that are provided in the query.

- UpdateBrokerCount

Updates the number of broker nodes in the cluster. You can use this operation to increase or decrease the number of brokers in an existing cluster.

The following Python 3.6 example shows how you can increase the number of brokers in a cluster to 6 brokers. The update operation returns immediately, with a response that includes the Amazon Resource Name (ARN) that Amazon MSK assigns to this cluster operation. You can use that ARN to check the state of the operation. When the state changes from PENDING to UPDATE_COMPLETE, the operation is complete.

```
import boto3
import time

client = boto3.client('kafka')

update_broker_count_response = client.update_broker_count(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
    CurrentVersion='K12V3IB1VIZHHY',
    TargetNumberOfBrokerNodes=6
)

operation_arn = update_broker_count_response['ClusterOperationArn']

print(operation_arn)

describe_cluster_operation_response =
 client.describe_cluster_operation(ClusterOperationArn=operation_arn)
operation_state = describe_cluster_operation_response['ClusterOperationInfo']
['OperationState']
print(operation_state)

expanded = False

while not expanded:
    print('Sleeping for 15 seconds before checking to see if the cluster update is
 done...')
    time.sleep(15)
```

```
    describe_cluster_operation_response =
 client.describe_cluster_operation(ClusterOperationArn=operation_arn)
    operation_state = describe_cluster_operation_response['ClusterOperationInfo']
['OperationState']
    if 'UPDATE_COMPLETE' == operation_state:
        expanded = True
        print('The cluster has 6 brokers now.')
```

- UpdateBrokerStorage

  Updates the EBS storage associated with Amazon MSK brokers. You can increase the amount of
  EBS storage per broker. You can't decrease the storage. To increase storage, wait for the cluster
  to be in the ACTIVE state. Storage volumes remain available during this scaling-up operation.

- UpdateBrokerType

  For information about this operation, see Updating the broker type in the developer guide.

- UpdateClusterConfiguration

  Updates the cluster with the configuration that is specified in the request body. Before you
  invoke this operation, ensure that the number of partitions per broker on your MSK cluster is
  under the limits described in Number of partitions per broker. You can't update the configuration
  of an MSK cluster that exceeds these limits.

- UpdateClusterKafkaVersion

  Updates the cluster to the specified Apache Kafka version. Before you invoke this operation,
  ensure that the number of partitions per broker on your MSK cluster is under the limits described
  in Number of partitions per broker. You can't update the Apache Kafka version for an MSK cluster
  that exceeds these limits.

- UpdateConfiguration

  Creates a new revision of the cluster configuration. The configuration must be in the ACTIVE
  state.

- UpdateConnectivity

  Updates the connectivity setting for the cluster.

- UpdateMonitoring

  Updates the monitoring settings for the cluster. You can use this operation to specify which
  Apache Kafka metrics you want Amazon MSK to send to Amazon CloudWatch. You can also

specify settings for open monitoring with Prometheus. The following Python 3.6 example enables open monitoring with the Node Exporter. It also sets enhanced monitoring to PER_BROKER. For more information about monitoring, see [Monitoring](#).

```python
import boto3
import time

client = boto3.client('kafka')

update_monitoring_response = client.update_monitoring(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
    CurrentVersion='K12V3IB1VIZHHY',
    EnhancedMonitoring='PER_BROKER',
    OpenMonitoring={"Prometheus":{"JmxExporter":
{"EnabledInBroker":False},"NodeExporter":{"EnabledInBroker":True}}}
)

operation_arn = update_monitoring_response['ClusterOperationArn']
print('The ARN of the update operation is ' + operation_arn)

describe_cluster_operation_response =
 client.describe_cluster_operation(ClusterOperationArn=operation_arn)

operation_state = describe_cluster_operation_response['ClusterOperationInfo']
['OperationState']
print('The status of the update operation is ' + operation_state)

updated = False

while not updated:
    print('Sleeping for 15 seconds before checking to see if the monitoring update is
 done...')
    time.sleep(15)
    describe_cluster_operation_response =
 client.describe_cluster_operation(ClusterOperationArn=operation_arn)
    operation_state = describe_cluster_operation_response['ClusterOperationInfo']
['OperationState']
    if 'UPDATE_COMPLETE' == operation_state:
        updated = True
        print('You have successfully updated the monitoring settings.')
```

- [UpdateSecurity](#)

- UpdateStorage

Resources

The Amazon Managed Streaming for Apache Kafka REST API includes the following resources.

Topics

- [Apache Kafka Versions](#)
- [BootstrapBrokers](#)
- [Broker Count](#)
- [Broker Storage](#)
- [Broker Type](#)
- [Brokers](#)
- [Cluster](#)
- [Cluster Apache Kafka Version](#)
- [Cluster Configuration](#)
- [Cluster Connectivity](#)
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- [Cluster Operations](#)
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- [Clusters clusterArn Client-vpc-connection](#)
- [Clusters clusterArn Client-vpc-connections](#)
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- [Compatible Apache Kafka Versions](#)
- [Configuration](#)
- [Configuration Revision](#)
- [Configuration Revisions](#)
- [Configurations](#)
- [Monitoring Properties](#)
- [Reboot Broker](#)

- [Scram Secrets](#)
- [Tags](#)
- [UpdateStorage](#)
- [Vpc-connection](#)
- [Vpc-connection arn](#)
- [Vpc-connections](#)

Apache Kafka Versions

Objects that represent Apache Kafka versions.

URI

`/v1/kafka-versions`

HTTP methods

GET

Operation ID: `ListKafkaVersions`

Returns the Apache Kafka version objects.

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker. When the result of the operation is truncated, the call returns `NextToken` in the response. To get the next batch, provide this token in your next request.

Name	Type	Required	Description
maxResults	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there are more results, the response includes a `NextToken` parameter.

Responses

Status code	Response model	Description
200	[ListKafkaVersionsResponse](#)	200 response
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.

Status code	Response model	Description
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning the correct headers.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

ListKafkaVersionsResponse schema

```
{
  "kafkaVersions": [
    {
      "status": enum,
      "version": "string"
    }
  ],
  "nextToken": "string"
}
```

Error schema

```
{
   "invalidParameter": "string",
   "message": "string"
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

>   **Type**: string
>   **Required**: False

message

The description of the error.

>   **Type**: string
>   **Required**: False

KafkaVersion

Information about an Apache Kafka version.

status

The status of the Apache Kafka version.

>   **Type**: KafkaVersionStatus
>   **Required**: False

version

The Apache Kafka version.

Type: string

Required: False

KafkaVersionStatus

The status of an Apache Kafka version.

```
ACTIVE
DEPRECATED
```

ListKafkaVersionsResponse

Response for ListKafkaVersions.

kafkaVersions

An array of Apache Kafka version objects.

Type: Array of type [KafkaVersion](#)

Required: False

nextToken

Paginated results marker.

Type: string

Required: False

See also

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

ListKafkaVersions

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

BootstrapBrokers

A list of brokers that a client application can use to bootstrap.

URI

/v1/clusters/*clusterArn*/bootstrap-brokers

HTTP methods

GET

Operation ID: GetBootstrapBrokers

A list of brokers that a client can use to bootstrap. This list doesn't necessarily include all of the brokers in the cluster. The following Python 3.6 example shows how you can use the Amazon Resource Name (ARN) of a cluster to get its bootstrap brokers. If you don't know the ARN of your cluster, you can use the `ListClusters` operation to get the ARNs of all the clusters in this account and Region.

```
import boto3

client = boto3.client('kafka')

response = client.get_bootstrap_brokers(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
)

print(response['BootstrapBrokerString'])
```

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	GetBootstrapBrokersResponse	Successful response.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying

Status code	Response model	Description
		your request might resolve the issue.
503	[Error](#)	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

GetBootstrapBrokersResponse schema

```
{
  "bootstrapBrokerString": "string",
  "bootstrapBrokerStringPublicSaslIam": "string",
  "bootstrapBrokerStringPublicSaslScram": "string",
  "bootstrapBrokerStringPublicTls": "string",
  "bootstrapBrokerStringSaslIam": "string",
```

```
    "bootstrapBrokerStringSaslScram": "string",
    "bootstrapBrokerStringTls": "string",
    "bootstrapBrokerStringVpcConnectivitySaslIam": "string",
    "bootstrapBrokerStringVpcConnectivitySaslScram": "string",
    "bootstrapBrokerStringVpcConnectivityTls": "string"
}
```

Error schema

```
{
    "invalidParameter": "string",
    "message": "string"
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

GetBootstrapBrokersResponse

Returns a string containing one or more hostname:port pairs.

bootstrapBrokerString

A string containing one or more hostname:port pairs.

Type: string

Required: False

bootstrapBrokerStringPublicSaslIam

A string that is one or more pairs of DNS names (or IP addresses) and SASL IAM ports for public access.

Type: string

Required: False

bootstrapBrokerStringPublicSaslScram

A string that is one or more pairs of DNS names (or IP addresses) and SASL IAM ports for public access.

Type: string

Required: False

bootstrapBrokerStringPublicTls

A string that is one or more pairs of DNS names (or IP addresses) and SASL IAM ports for public access.

Type: string

Required: False

bootstrapBrokerStringSaslIam

A string containing one or more dns name (or IP) and SASL IAM port pairs.

Type: string

Required: False

bootstrapBrokerStringSaslScram

A string containing one or more dns name (or IP) and SASL SCRAM port pairs.

Type: string

Required: False

bootstrapBrokerStringTls

A string containing one or more DNS names (or IP) and TLS port pairs. The following is an example.

```
{
    "BootstrapBrokerStringTls": "b-3.exampleClusterName.abcde.c2.kafka.us-
east-1.amazonaws.com:9094,b-1.exampleClusterName.abcde.c2.kafka.us-
east-1.amazonaws.com:9094,b-2.exampleClusterName.abcde.c2.kafka.us-
east-1.amazonaws.com:9094"
}
```

Type: string

Required: False

bootstrapBrokerStringVpcConnectivitySaslIam

A string containing one or more dns name (or IP) and SASL IAM port pairs for VPC connectivity.

Type: string

Required: False

bootstrapBrokerStringVpcConnectivitySaslScram

A string containing one or more dns name (or IP) and SASL SCRAM port pairs for VPC connectivity.

Type: string

Required: False

bootstrapBrokerStringVpcConnectivityTls

A string containing one or more dns name (or IP) and Tls port pairs for VPC connectivity.

Type: string

Required: False

See also

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

GetBootstrapBrokers

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Broker Count

The number of broker nodes in a cluster.

URI

/v1/clusters/*clusterArn*/nodes/count

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that

Name	Type	Required	Description
			uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: `UpdateBrokerCount`

Updates the number of broker nodes in the cluster. You can use this operation to increase or decrease the number of brokers in an existing cluster.

The following Python 3.6 example shows how you can increase the number of brokers in a cluster to 6 brokers. The update operation returns immediately, with a response that includes the Amazon Resource Name (ARN) that Amazon MSK assigns to this cluster operation. You can use that ARN to check the state of the operation. When the state changes from `PENDING` to `UPDATE_COMPLETE`, the operation is complete.

```
import boto3
import time

client = boto3.client('kafka')

update_broker_count_response = client.update_broker_count(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
    CurrentVersion='K12V3IB1VIZHHY',
    TargetNumberOfBrokerNodes=6
)

operation_arn = update_broker_count_response['ClusterOperationArn']

print(operation_arn)
```

```
describe_cluster_operation_response =
 client.describe_cluster_operation(ClusterOperationArn=operation_arn)
operation_state = describe_cluster_operation_response['ClusterOperationInfo']
['OperationState']
print(operation_state)

expanded = False

while not expanded:
    print('Sleeping for 15 seconds before checking to see if the cluster update is
 done...')
    time.sleep(15)
    describe_cluster_operation_response =
 client.describe_cluster_operation(ClusterOperationArn=operation_arn)
    operation_state = describe_cluster_operation_response['ClusterOperationInfo']
['OperationState']
    if 'UPDATE_COMPLETE' == operation_state:
        expanded = True
        print('The cluster has 6 brokers now.')
```

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	UpdateBrokerCountResponse	Successful response.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.

Status code	Response model	Description
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "currentVersion": "string",
  "targetNumberOfBrokerNodes": integer
}
```

Response bodies

UpdateBrokerCountResponse schema

```
{
   "clusterArn": "string",
   "clusterOperationArn": "string"
}
```

Error schema

```
{
   "invalidParameter": "string",
   "message": "string"
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

UpdateBrokerCountRequest

Request body for UpdateBrokerCount. Accepts a targetNumberOfBrokerNodes value that is 2 or 3 less than the current broker node count for the cluster (for 2 and 3 AZ clusters respectively).

currentVersion

The current version of the cluster.

>   **Type**: string
>   **Required**: True

targetNumberOfBrokerNodes

The number of broker nodes that you want the cluster to have after this operation completes successfully.

>   **Type**: integer
>   **Required**: True

UpdateBrokerCountResponse

Response body for UpdateBrokerCount.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

>   **Type**: string
>   **Required**: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

>   **Type**: string
>   **Required**: False

See also

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

UpdateBrokerCount

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

Broker Storage

Represents the EBS storage associated with the brokers.

URI

/v1/clusters/*clusterArn*/nodes/storage

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: UpdateBrokerStorage

Updates the EBS storage associated with Amazon MSK brokers. You can increase the amount of EBS storage per broker. You can't decrease the storage. To increase storage, wait for the cluster to be in the ACTIVE state. Storage volumes remain available during this scaling-up operation.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[UpdateBrokerStorageResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.

Status code	Response model	Description
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "currentVersion": "string",
  "targetBrokerEBSVolumeInfo": [
    {
      "kafkaBrokerNodeId": "string",
      "provisionedThroughput": {
        "enabled": boolean,
        "volumeThroughput": integer
      },
      "volumeSizeGB": integer
    }
  ]
}
```

Response bodies

UpdateBrokerStorageResponse schema

```
{
    "clusterArn": "string",
    "clusterOperationArn": "string"
}
```

Error schema

```
{
    "invalidParameter": "string",
    "message": "string"
}
```

Properties

BrokerEBSVolumeInfo

Specifies the EBS volume upgrade information. The broker identifier must be set to the keyword ALL. This means the changes apply to all the brokers in the cluster.

kafkaBrokerNodeId

The ID of the broker to update. The only allowed value is ALL. This means that Amazon MSK applies the same storage update to all broker nodes.

> **Type**: string
> **Required**: True

provisionedThroughput

EBS volume provisioned throughput information.

> **Type**: ProvisionedThroughput
> **Required**: False

volumeSizeGB

Size of the EBS volume to update.

> **Type**: integer
> **Required**: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

ProvisionedThroughput

Contains information about provisioned throughput for EBS storage volumes attached to kafka broker nodes.

enabled

Provisioned throughput is enabled or not.

> **Type**: boolean
> **Required**: False

volumeThroughput

Throughput value of the EBS volumes for the data drive on each kafka broker node in MiB per second.

>**Type**: integer
>**Required**: False

UpdateBrokerStorageRequest

Request object for UpdateBrokerStorage.

currentVersion

The version of the MSK cluster to update. Cluster versions aren't simple numbers. You can describe an MSK cluster to find its version. When this update operation is successful, it generates a new cluster version.

>**Type**: string
>**Required**: True

targetBrokerEBSVolumeInfo

Describes the target volume size and the ID of the broker to apply the update to.

The value you specify for Target-Volume-in-GiB must be a whole number that is greater than 100 GiB.

The storage per broker after the update operation can't exceed 16384 GiB.

>**Type**: Array of type BrokerEBSVolumeInfo
>**Required**: True

UpdateBrokerStorageResponse

Response body for UpdateBrokerStorage.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string

Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

Type: string

Required: False

See also

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

UpdateBrokerStorage

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Broker Type

The type of brokers in the cluster. All of the brokers in a cluster are the same type.

URI

/v1/clusters/*clusterArn*/nodes/type

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: UpdateBrokerType

For information about this operation, see [Updating the broker type](#) in the developer guide.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[UpdateBrokerTypeResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

Schemas

Request bodies

PUT schema

```
{
   "currentVersion": "string",
   "targetInstanceType": "string"
}
```

Response bodies

UpdateBrokerTypeResponse schema

```
{
   "clusterArn": "string",
   "clusterOperationArn": "string"
}
```

Error schema

```
{
   "invalidParameter": "string",
   "message": "string"
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string
Required: False

message

The description of the error.

Type: string

Required: False

UpdateBrokerTypeRequest

Request body for UpdateBrokerType.

currentVersion

Current cluster version.

Type: string

Required: True

targetInstanceType

The type of Amazon EC2 instances to use for Kafka brokers.

Type: string

Required: True

UpdateBrokerTypeResponse

Response body for UpdateBrokerType.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string

Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

Type: string

Required: False

See also

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

UpdateBrokerType

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Brokers

The broker nodes in the cluster.

URI

/v1/clusters/*clusterArn*/nodes

HTTP methods

GET

Operation ID: ListNodes

Returns a list of the broker nodes in the cluster. The following Python 3.6 example first lists one node of a cluster. Because the cluster has more nodes, the response contains a token that the script then uses to list the remaining nodes.

```
import boto3

client = boto3.client('kafka')
```

```
list_nodes_response = client.list_nodes(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
    MaxResults=1
)

print('\n')
print('Here is the first node in the list:')
print('\n')
print(list_nodes_response['NodeInfoList'])

next_token = list_nodes_response['NextToken']

list_nodes_response = client.list_nodes(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
    NextToken=next_token
)

print('\n')
print('Here are the remaining nodes in the list:')
print('\n')
print(list_nodes_response['NodeInfoList'])
```

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker. When the result

Name	Type	Required	Description
			of the operation is truncated, the call returns `NextToken` in the response. To get the next batch, provide this token in your next request.
maxResults	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there are more results, the response includes a `NextToken` parameter.

Responses

Status code	Response model	Description
200	[ListNodesResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.

Status code	Response model	Description
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

ListNodesResponse schema

```
{
  "nextToken": "string",
  "nodeInfoList": [
    {
      "addedToClusterTime": "string",
      "brokerNodeInfo": {
        "attachedENIId": "string",
        "brokerId": number,
        "clientSubnet": "string",
        "clientVpcIpAddress": "string",
        "currentBrokerSoftwareInfo": {
          "configurationArn": "string",
          "configurationRevision": integer,
          "kafkaVersion": "string"
        },
        "endpoints": [
          "string"
        ]
      },
      "controllerNodeInfo": {
        "endpoints": [
          "string"
        ]
      },
      "instanceType": "string",
      "nodeARN": "string",
      "nodeType": enum,
      "zookeeperNodeInfo": {
        "attachedENIId": "string",
```

```
        "clientVpcIpAddress": "string",
        "endpoints": [
          "string"
        ],
        "zookeeperId": number,
        "zookeeperVersion": "string"
      }
    }
  ]
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

BrokerNodeInfo

BrokerNodeInfo

attachedENIId

The attached elastic network interface of the broker.

> **Type**: string
> **Required**: False

brokerId

The ID of the broker.

> **Type**: number
> **Required**: False

clientSubnet

The client subnet to which this broker node belongs.

Type: string
Required: False

clientVpcIpAddress

The virtual private cloud (VPC) of the client.

Type: string
Required: False

currentBrokerSoftwareInfo

Information about the version of software currently deployed on the brokers in the cluster.

Type: BrokerSoftwareInfo
Required: False

endpoints

Endpoints for accessing the broker.

Type: Array of type string
Required: False

BrokerSoftwareInfo

Information about the current software installed on the cluster.

configurationArn

The Amazon Resource Name (ARN) of the configuration used for the cluster. This field isn't visible in this preview release.

Type: string
Required: False

configurationRevision

The revision of the configuration to use. This field isn't visible in this preview release.

Type: integer

Required: False

Format: int64

kafkaVersion

The version of Apache Kafka. You can use Amazon MSK to create clusters that use Apache Kafka versions 1.1.1 and 2.2.1.

Type: string

Required: False

ControllerNodeInfo

Controller Node Information.

endpoints

Endpoints for accessing the controller.

Type: Array of type string

Required: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string

Required: False

message

The description of the error.

Type: string

Required: False

ListNodesResponse

Information about nodes in the cluster.

nextToken

The paginated results marker. When the result of a `ListNodes` operation is truncated, the call returns `NextToken` in the response. To get another batch of nodes, provide this token in your next request.

> **Type**: string
> **Required**: False

nodeInfoList

List containing a `NodeInfo` object. Doesn't contain entries for brokers that have been deleted.

> **Type**: Array of type NodeInfo
> **Required**: False

NodeInfo

The node information object.

addedToClusterTime

The start time.

> **Type**: string
> **Required**: False

brokerNodeInfo

The broker node info.

> **Type**: BrokerNodeInfo
> **Required**: False

controllerNodeInfo

The controller node information.

>   **Type**: ControllerNodeInfo
>   **Required**: False

instanceType

The instance type.

>   **Type**: string
>   **Required**: False

nodeARN

The Amazon Resource Name (ARN) of the node.

>   **Type**: string
>   **Required**: False

nodeType

The node type.

>   **Type**: NodeType
>   **Required**: False

zookeeperNodeInfo

The ZookeeperNodeInfo.

>   **Type**: ZookeeperNodeInfo
>   **Required**: False

NodeType

The broker or Apache ZooKeeper node.

BROKER

ZookeeperNodeInfo

Apache ZooKeeper node information.

attachedENIId

The attached elastic network interface of the broker.

> **Type**: string
> **Required**: False

clientVpcIpAddress

The virtual private cloud (VPC) IP address of the client.

> **Type**: string
> **Required**: False

endpoints

Endpoints for accessing the Apache ZooKeeper nodes.

> **Type**: Array of type string
> **Required**: False

zookeeperId

The role-specific ID for Apache ZooKeeper.

> **Type**: number
> **Required**: False

zookeeperVersion

The version of Apache ZooKeeper.

> **Type**: string

Required: False

See also

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

ListNodes

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Cluster

Represents an Amazon MSK cluster.

URI

/v1/clusters/*clusterArn*

HTTP methods

DELETE

Operation ID: `DeleteCluster`

Deletes the MSK cluster specified by the Amazon Resource Name (ARN) in the request, and all its revisions.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Query parameters

Name	Type	Required	Description
currentVersion	String	False	The current version of the MSK cluster.

Responses

Status code	Response model	Description
200	DeleteClusterRespo nse	Successful response.
400	Error	The request isn't valid because the input is incorrect . Correct your input and then submit it again.
401	Error	The request is not authorize d. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input.

Status code	Response model	Description
		Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

GET

Operation ID: `DescribeCluster`

Returns a description of the MSK cluster whose Amazon Resource Name (ARN) is specified in the request. The following is a Python 3.6 example of how to use this operation. Before you run this Python script, replace the example cluster Amazon Resource Name (ARN) with the ARN of the cluster you want to describe. If you don't know the ARN of the cluster, you can use the `ListClusters` operation to list all the clusters and see their ARNs and full descriptions.

```
import boto3

client = boto3.client('kafka')

response = client.describe_cluster(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4'
)

print(response)
```

Note that the response to this operation only includes the `ZookeeperConnectStringTls` node in clusters created with Apache Kafka version 2.5.1 and later.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	DescribeClusterResponse	Successful response.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying

Status code	Response model	Description
		your request might resolve the issue.
503	[Error](#)	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

DeleteClusterResponse schema

```
{
  "clusterArn": "string",
  "state": enum
}
```

DescribeClusterResponse schema

```
{
  "clusterInfo": {
    "activeOperationArn": "string",
    "brokerNodeGroupInfo": {
      "brokerAZDistribution": enum,
      "clientSubnets": [
        "string"
      ],
      "connectivityInfo": {
        "publicAccess": {
          "type": "string"
        },
        "vpcConnectivity": {
          "clientAuthentication": {
            "sasl": {
              "iam": {
                "enabled": boolean
              },
              "scram": {
                "enabled": boolean
              }
            },
            "tls": {
              "enabled": boolean
            }
          }
        }
      },
      "instanceType": "string",
      "securityGroups": [
        "string"
      ],
      "storageInfo": {
        "ebsStorageInfo": {
          "provisionedThroughput": {
            "enabled": boolean,
            "volumeThroughput": integer
          },
          "volumeSize": integer
        }
      },
      "zoneIds": [
```

```
        "string"
      ]
    },
    "clientAuthentication": {
      "sasl": {
        "iam": {
          "enabled": boolean
        },
        "scram": {
          "enabled": boolean
        }
      },
      "tls": {
        "certificateAuthorityArnList": [
          "string"
        ],
        "enabled": boolean
      },
      "unauthenticated": {
        "enabled": boolean
      }
    },
    "clusterArn": "string",
    "clusterName": "string",
    "creationTime": "string",
    "currentBrokerSoftwareInfo": {
      "configurationArn": "string",
      "configurationRevision": integer,
      "kafkaVersion": "string"
    },
    "currentVersion": "string",
    "customerActionStatus": enum,
    "encryptionInfo": {
      "encryptionAtRest": {
        "dataVolumeKMSKeyId": "string"
      },
      "encryptionInTransit": {
        "clientBroker": enum,
        "inCluster": boolean
      }
    },
    "enhancedMonitoring": enum,
    "loggingInfo": {
      "brokerLogs": {
```

```
      "cloudWatchLogs": {
        "enabled": boolean,
        "logGroup": "string"
      },
      "firehose": {
        "deliveryStream": "string",
        "enabled": boolean
      },
      "s3": {
        "bucket": "string",
        "enabled": boolean,
        "prefix": "string"
      }
    }
  },
  "numberOfBrokerNodes": integer,
  "openMonitoring": {
    "prometheus": {
      "jmxExporter": {
        "enabledInBroker": boolean
      },
      "nodeExporter": {
        "enabledInBroker": boolean
      }
    }
  },
  "state": enum,
  "stateInfo": {
    "code": "string",
    "message": "string"
  },
  "storageMode": enum,
  "tags": {
  },
  "zookeeperConnectString": "string",
  "zookeeperConnectStringTls": "string"
  }
}
```

Error schema

```
{
  "invalidParameter": "string",
```

```
    "message": "string"
}
```

Properties

BrokerAZDistribution

This parameter is currently not in use.

```
    DEFAULT
```

BrokerLogs

The broker logs configuration for this MSK cluster.

cloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

> **Type**: CloudWatchLogs
> **Required**: False

firehose

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

> **Type**: Firehose
> **Required**: False

s3

Details of the Amazon S3 destination for broker logs.

> **Type**: S3
> **Required**: False

BrokerNodeGroupInfo

Describes the setup to be used for the broker nodes in the cluster.

brokerAZDistribution

This parameter is currently not in use.

> **Type**: BrokerAZDistribution
> **Required**: False

clientSubnets

The list of subnets to connect to in the client virtual private cloud (VPC). Amazon creates elastic network interfaces inside these subnets. Client applications use elastic network interfaces to produce and consume data.

If you use the US West (N. California) Region, specify exactly two subnets. For other Regions where Amazon MSK is available, you can specify either two or three subnets. The subnets that you specify must be in distinct Availability Zones. When you create a cluster, Amazon MSK distributes the broker nodes evenly across the subnets that you specify.

Client subnets can't occupy the Availability Zone with ID `use1-az3`.

> **Type**: Array of type string
> **Required**: True

connectivityInfo

Information about the cluster's connectivity setting.

> **Type**: ConnectivityInfo
> **Required**: False

instanceType

The type of Amazon EC2 instances to use for brokers. The following instance types are allowed: kafka.m5.large, kafka.m5.xlarge, kafka.m5.2xlarge, kafka.m5.4xlarge, kafka.m5.8xlarge, kafka.m5.12xlarge, kafka.m5.16xlarge, and kafka.m5.24xlarge.

> **Type**: string
> **Required**: True
> **MinLength**: 5
> **MaxLength**: 32

securityGroups

The security groups to associate with the elastic network interfaces in order to specify who can connect to and communicate with the Amazon MSK cluster. If you don't specify a security group, Amazon MSK uses the default security group associated with the VPC. If you specify security groups that were shared with you, you must ensure that you have permissions to them. Specifically, you need the `ec2:DescribeSecurityGroups` permission.

    Type: Array of type string
    Required: False

storageInfo

Contains information about storage volumes attached to Amazon MSK broker nodes.

    Type: StorageInfo
    Required: False

zoneIds

The zoneIds for brokers in customer account.

    Type: Array of type string
    Required: False

BrokerSoftwareInfo

Information about the current software installed on the cluster.

configurationArn

The Amazon Resource Name (ARN) of the configuration used for the cluster. This field isn't visible in this preview release.

    Type: string
    Required: False

configurationRevision

The revision of the configuration to use. This field isn't visible in this preview release.

Type: integer
Required: False
Format: int64

kafkaVersion

The version of Apache Kafka. You can use Amazon MSK to create clusters that use Apache Kafka versions 1.1.1 and 2.2.1.

Type: string
Required: False

ClientAuthentication

Includes all client authentication information.

sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set `unauthenticated` to true.

Type: Sasl
Required: False

tls

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on `EncryptionInTransit` by setting `inCluster` to true and `clientBroker` to TLS.

Type: [Tls](Tls)
Required: False

unauthenticated

Details for ClientAuthentication using no authentication.

Type: Unauthenticated

Required: False

ClientBroker

Client-broker encryption in transit setting.

```
TLS
TLS_PLAINTEXT
PLAINTEXT
```

CloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

enabled

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

Type: boolean
Required: True

logGroup

The CloudWatch log group that is the destination for broker logs.

Type: string
Required: False

ClusterInfo

Returns information about a cluster.

activeOperationArn

Arn of active cluster operation.

Type: string
Required: False

brokerNodeGroupInfo

Information about the broker nodes.

> **Type**: [BrokerNodeGroupInfo](#)
> **Required**: False

clientAuthentication

Includes all client authentication information.

> **Type**: [ClientAuthentication](#)
> **Required**: False

clusterArn

The Amazon Resource Name (ARN) that uniquely identifies the cluster.

> **Type**: string
> **Required**: False

clusterName

The name of the cluster.

> **Type**: string
> **Required**: False

creationTime

The time when the cluster was created.

> **Type**: string
> **Required**: False

currentBrokerSoftwareInfo

Information about the version of software currently deployed on the brokers in the cluster.

> **Type**: [BrokerSoftwareInfo](#)

Required: False

currentVersion

The current version of the MSK cluster. Cluster versions aren't simple integers. You can obtain the current version by describing the cluster. An example version is KTVPDKIKX0DER.

Type: string
Required: False

customerActionStatus

Determines if there is an action required from the customer.

Type: CustomerActionStatus
Required: False

encryptionInfo

Includes all encryption-related information.

Type: EncryptionInfo
Required: False

enhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

Type: EnhancedMonitoring
Required: False

loggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

Type: LoggingInfo

Required: False

numberOfBrokerNodes

The number of broker nodes in the cluster.

Type: integer

Required: False

openMonitoring

Settings for open monitoring using Prometheus.

Type: OpenMonitoring

Required: False

state

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the ACTIVE state.

Type: ClusterState

Required: False

stateInfo

Includes information of the cluster state.

Type: StateInfo

Required: False

storageMode

This controls storage mode for supported storage tiers.

> **Type**: StorageMode
> **Required**: False

tags

Tags attached to the cluster.

> **Type**: object
> **Required**: False

zookeeperConnectString

The connection string to use to connect to zookeeper cluster on plaintext port.

> **Type**: string
> **Required**: False

zookeeperConnectStringTls

The connection string to use to connect to the Apache ZooKeeper cluster on a TLS port.

> **Type**: string
> **Required**: False

ClusterState

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to `MAINTENANCE` when it starts the certificate-update operation. It sets it back to `ACTIVE` when the update is done. While a cluster is in the `MAINTENANCE` state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the `ACTIVE` state.

> `ACTIVE`

```
CREATING
UPDATING
DELETING
FAILED
MAINTENANCE
REBOOTING_BROKER
HEALING
```

ConnectivityInfo

Broker access controls.

publicAccess

Access control settings for the cluster's brokers.

    Type: PublicAccess
    Required: False

vpcConnectivity

VPC connection control settings for brokers

    Type: VpcConnectivity
    Required: False

CustomerActionStatus

A type of an action required from the customer.

```
CRITICAL_ACTION_REQUIRED
ACTION_RECOMMENDED
NONE
```

DeleteClusterResponse

Returns information about the deleted cluster.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: False

state

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the ACTIVE state.

> **Type**: ClusterState
> **Required**: False

DescribeClusterResponse

Returns information about a cluster.

clusterInfo

The cluster information.

> **Type**: ClusterInfo
> **Required**: False

EBSStorageInfo

Contains information about the EBS storage volumes attached to the broker nodes.

provisionedThroughput

EBS volume provisioned throughput information.

> **Type**: ProvisionedThroughput
> **Required**: False

volumeSize

The size in GiB of the EBS volume for the data drive on each broker node.

> **Type**: integer
> **Required**: False
> **Minimum**: 1
> **Maximum**: 16384

EncryptionAtRest

The data-volume encryption details. You can't update encryption at rest settings for existing clusters.

dataVolumeKMSKeyId

The Amazon Resource Name (ARN) of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

> **Type**: string
> **Required**: True

EncryptionInTransit

The settings for encrypting data in transit.

clientBroker

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

TLS means that client-broker communication is enabled with TLS only.

TLS_PLAINTEXT means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

PLAINTEXT means that client-broker communication is enabled in plaintext only.

The default value is TLS.

> **Type**: ClientBroker
> **Required**: False

inCluster

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

> **Type**: boolean
> **Required**: False

EncryptionInfo

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

encryptionAtRest

The data-volume encryption details.

> **Type**: EncryptionAtRest
> **Required**: False

encryptionInTransit

The details for encryption in transit.

> **Type**: EncryptionInTransit
> **Required**: False

EnhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

```
DEFAULT
PER_BROKER
PER_TOPIC_PER_BROKER
PER_TOPIC_PER_PARTITION
```

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

    Type: string

    Required: False

message

The description of the error.

    Type: string

    Required: False

Firehose

Firehose details for BrokerLogs.

deliveryStream

The Kinesis Data Firehose delivery stream that is the destination for broker logs.

    Type: string

    Required: False

enabled

Specifies whether broker logs get sent to the specified Kinesis Data Firehose delivery stream.

    Type: boolean

    Required: True

IAM

Details for SASL/IAM client authentication.

enabled

SASL/IAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

JmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

enabledInBroker

Indicates whether you want to enable or disable the JMX Exporter.

> **Type**: boolean
> **Required**: True

LoggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

brokerLogs

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

> **Type**: BrokerLogs
> **Required**: True

NodeExporter

Indicates whether you want to enable or disable the Node Exporter.

enabledInBroker

Indicates whether you want to enable or disable the Node Exporter.

> **Type**: boolean

Required: True

OpenMonitoring

JMX and Node monitoring for the MSK cluster.

prometheus

Prometheus exporter settings.

    Type: [Prometheus](#)
    Required: True

Prometheus

Prometheus settings for open monitoring.

jmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

    Type: [JmxExporter](#)
    Required: False

nodeExporter

Indicates whether you want to enable or disable the Node Exporter.

    Type: [NodeExporter](#)
    Required: False

ProvisionedThroughput

Contains information about provisioned throughput for EBS storage volumes attached to kafka broker nodes.

enabled

Provisioned throughput is enabled or not.

Type: boolean
Required: False

volumeThroughput

Throughput value of the EBS volumes for the data drive on each kafka broker node in MiB per second.

Type: integer
Required: False

PublicAccess

Broker access controls

type

DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

Type: string
Required: False

S3

The details of the Amazon S3 destination for broker logs.

bucket

The name of the S3 bucket that is the destination for broker logs.

Type: string
Required: False

enabled

Specifies whether broker logs get sent to the specified Amazon S3 destination.

Type: boolean

Required: True

prefix

The S3 prefix that is the destination for broker logs.

> **Type**: string
> **Required**: False

Sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either TLS or `TLS_PLAINTEXT`. If you choose `TLS_PLAINTEXT`, then you must also set `unauthenticated` to true.

iam

Details for ClientAuthentication using IAM.

> **Type**: [IAM](#)
> **Required**: False

scram

Details for SASL/SCRAM client authentication.

> **Type**: [Scram](#)
> **Required**: False

Scram

Details for SASL/SCRAM client authentication.

enabled

SASL/SCRAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

StateInfo

Includes information about the state of the cluster.

code

If the cluster is in an unusable state, this field contains the code that describes the issue.

> **Type**: string
> **Required**: False

message

If the cluster is in an unusable state, this field contains a message that describes the issue.

> **Type**: string
> **Required**: False

StorageInfo

Contains information about storage volumes attached to Amazon MSK broker nodes.

ebsStorageInfo

EBS volume information.

> **Type**: EBSStorageInfo
> **Required**: False

StorageMode

Controls storage mode for various supported storage tiers.

    LOCAL
    TIERED

Tls

Details for client authentication using TLS.

certificateAuthorityArnList

List of AWS Private CA Amazon Resource Name (ARN)s.

> **Type**: Array of type string
> **Required**: False

enabled

TLS authentication is enabled or not.

> **Type**: boolean
> **Required**: False

Unauthenticated

Details for allowing no client authentication.

enabled

Unauthenticated is enabled or not.

> **Type**: boolean
> **Required**: False

VpcConnectivity

VPC connection control settings for brokers.

clientAuthentication

VPC connection control settings for brokers.

> **Type**: VpcConnectivityClientAuthentication
> **Required**: False

VpcConnectivityClientAuthentication

Includes all client authentication information for VpcConnectivity.

sasl

Details for VpcConnectivity ClientAuthentication using SASL.

   Type: VpcConnectivitySasl
   Required: False

tls

Details for VpcConnectivity ClientAuthentication using TLS.

   Type: VpcConnectivityTls
   Required: False

VpcConnectivityIAM

Details for SASL/IAM client authentication for VpcConnectivity.

enabled

SASL/IAM authentication is enabled or not.

   Type: boolean
   Required: False

VpcConnectivitySasl

Details for client authentication using SASL for VpcConnectivity.

iam

Details for ClientAuthentication using IAM for VpcConnectivity.

   Type: VpcConnectivityIAM
   Required: False

scram

Details for SASL/SCRAM client authentication for VpcConnectivity.

Type: VpcConnectivityScram

Required: False

VpcConnectivityScram

Details for SASL/SCRAM client authentication for vpcConnectivity.

enabled

SASL/SCRAM authentication is enabled or not.

> **Type**: boolean
>
> **Required**: False

VpcConnectivityTls

Details for client authentication using TLS for vpcConnectivity.

enabled

TLS authentication is enabled or not.

> **Type**: boolean
>
> **Required**: False

See also

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

DeleteCluster

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

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeCluster

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Cluster Apache Kafka Version

The Apache Kafka version that is on the cluster.

URI

/v1/clusters/*clusterArn*/version

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that

Name	Type	Required	Description
			uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: `UpdateClusterKafkaVersion`

Updates the cluster to the specified Apache Kafka version. Before you invoke this operation, ensure that the number of partitions per broker on your MSK cluster is under the limits described in [Number of partitions per broker](). You can't update the Apache Kafka version for an MSK cluster that exceeds these limits.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[UpdateClusterKafka VersionResponse]()	Successful response.

Status code	Response model	Description
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "configurationInfo": {
    "arn": "string",
    "revision": integer
```

```
  },
  "currentVersion": "string",
  "targetKafkaVersion": "string"
}
```

Response bodies

UpdateClusterKafkaVersionResponse schema

```
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

ConfigurationInfo

Specifies the configuration to use for the brokers.

arn

ARN of the configuration to use.

   Type: string
   Required: True

revision

The revision of the configuration to use.

   Type: integer

Required: True

Format: int64

Minimum: 1

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string

Required: False

message

The description of the error.

Type: string

Required: False

UpdateClusterKafkaVersionRequest

Request body for UpdateClusterKafkaVersion.

configurationInfo

The custom configuration that should be applied on the new version of cluster.

Type: ConfigurationInfo

Required: False

currentVersion

Current cluster version.

Type: string

Required: True

targetKafkaVersion

Target Apache Kafka version.

> **Type**: string
> **Required**: True

UpdateClusterKafkaVersionResponse

Response body for UpdateClusterKafkaVersion.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

> **Type**: string
> **Required**: False

See also

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

UpdateClusterKafkaVersion

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Cluster Configuration

Represents the configuration of a specific cluster.

URI

/v1/clusters/*clusterArn*/configuration

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: UpdateClusterConfiguration

Updates the cluster with the configuration that is specified in the request body. Before you invoke this operation, ensure that the number of partitions per broker on your MSK cluster is under the limits described in [Number of partitions per broker](). You can't update the configuration of an MSK cluster that exceeds these limits.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[UpdateClusterConfigurationResponse]()	Successful response.
400	[Error]()	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error]()	The request is not authorized. The provided credentials couldn't be validated.
403	[Error]()	Access forbidden. Check your credentials and then retry your request.
404	[Error]()	The resource could not be found due to incorrect input.

Status code	Response model	Description
		Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "configurationInfo": {
    "arn": "string",
    "revision": integer
  },
  "currentVersion": "string"
}
```

Response bodies

UpdateClusterConfigurationResponse schema

```
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

Error schema

```
{
```

```
    "invalidParameter": "string",
    "message": "string"
}
```

Properties

ConfigurationInfo

Specifies the configuration to use for the brokers.

arn

ARN of the configuration to use.

> **Type**: string
> **Required**: True

revision

The revision of the configuration to use.

> **Type**: integer
> **Required**: True
> **Format**: int64
> **Minimum**: 1

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

Type: string

Required: False

UpdateClusterConfigurationRequest

Request body for UpdateClusterConfiguration.

configurationInfo

Represents the configuration that you want MSK to use for the cluster.

> **Type**: [ConfigurationInfo](#)
> **Required**: True

currentVersion

The version of the cluster that you want to update.

> **Type**: string
> **Required**: True

UpdateClusterConfigurationResponse

Response body for UpdateClusterConfiguration.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

> **Type**: string
> **Required**: False

See also

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

UpdateClusterConfiguration

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Cluster Connectivity

Use this resource to update the connectivity setting for an MSK cluster.

URI

/v1/clusters/*clusterArn*/connectivity

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that

Name	Type	Required	Description
			uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: UpdateConnectivity

Updates the connectivity setting for the cluster.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	UpdateConnectivity Response	Successful response.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.

Status code	Response model	Description
401	Error	The request is not authorize d. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "connectivityInfo": {
    "publicAccess": {
      "type": "string"
    },
    "vpcConnectivity": {
      "clientAuthentication": {
        "sasl": {
          "iam": {
            "enabled": boolean
```

```
        },
        "scram": {
          "enabled": boolean
        }
      },
      "tls": {
        "enabled": boolean
      }
    }
  }
},
  "currentVersion": "string"
}
```

Response bodies

UpdateConnectivityResponse schema

```
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

ConnectivityInfo

Broker access controls.

publicAccess

Access control settings for the cluster's brokers.

   Type: PublicAccess
   Required: False

vpcConnectivity

VPC connection control settings for brokers

> **Type**: VpcConnectivity
> **Required**: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

PublicAccess

Broker access controls

type

DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

> **Type**: string
> **Required**: False

UpdateConnectivityRequest

Request body for UpdateConnectivity.

connectivityInfo

The target connectivity setting for the cluster.

> **Type**: ConnectivityInfo
> **Required**: True

currentVersion

The current version of the cluster.

> **Type**: string
> **Required**: True

UpdateConnectivityResponse

Response body for UpdateConnectivity.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

> **Type**: string
> **Required**: False

VpcConnectivity

VPC connection control settings for brokers.

clientAuthentication

VPC connection control settings for brokers.

> **Type**: VpcConnectivityClientAuthentication

Required: False

VpcConnectivityClientAuthentication

Includes all client authentication information for VpcConnectivity.

sasl

Details for VpcConnectivity ClientAuthentication using SASL.

   Type: VpcConnectivitySasl
   Required: False

tls

Details for VpcConnectivity ClientAuthentication using TLS.

   Type: VpcConnectivityTls
   Required: False

VpcConnectivityIAM

Details for SASL/IAM client authentication for VpcConnectivity.

enabled

SASL/IAM authentication is enabled or not.

   Type: boolean
   Required: False

VpcConnectivitySasl

Details for client authentication using SASL for VpcConnectivity.

iam

Details for ClientAuthentication using IAM for VpcConnectivity.

   Type: VpcConnectivityIAM
   Required: False

scram

Details for SASL/SCRAM client authentication for VpcConnectivity.

  Type: VpcConnectivityScram
  Required: False

VpcConnectivityScram

Details for SASL/SCRAM client authentication for vpcConnectivity.

enabled

SASL/SCRAM authentication is enabled or not.

  Type: boolean
  Required: False

VpcConnectivityTls

Details for client authentication using TLS for vpcConnectivity.

enabled

TLS authentication is enabled or not.

  Type: boolean
  Required: False

See also

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

UpdateConnectivity

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

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Cluster Operation

Represents an operation that was performed on an MSK cluster.

URI

/v1/operations/*clusterOperationArn*

HTTP methods

GET

Operation ID: `DescribeClusterOperation`

Returns a description of the cluster operation specified by the Amazon Resource Name (ARN).

Path parameters

Name	Type	Required	Description
clusterOp erationArn	String	True	The Amazon Resource Name (ARN) that uniquely identifie s the MSK cluster operation.

Responses

Status code	Response model	Description
200	[DescribeClusterOpe rationResponse](#)	200 response

Status code	Response model	Description
400	Error	The request isn't valid because the input is incorrect . Correct your input and then submit it again.
401	Error	The request is not authorize d. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterOp erationArn	String	True	The Amazon Resource Name (ARN) that

Name	Type	Required	Description
			uniquely identifie s the MSK cluster operation.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

DescribeClusterOperationResponse schema

```
{
  "clusterOperationInfo": {
    "clientRequestId": "string",
    "clusterArn": "string",
    "creationTime": "string",
    "endTime": "string",
    "errorInfo": {
      "errorCode": "string",
      "errorString": "string"
    },
    "operationArn": "string",
    "operationState": "string",
    "operationSteps": [
      {
        "stepInfo": {
          "stepStatus": "string"
        },
        "stepName": "string"
      }
    ],
    "operationType": "string",
```

```
    "sourceClusterInfo": {
      "brokerCountUpdateInfo": {
        "createdBrokerIds": [
          number
        ],
        "deletedBrokerIds": [
          number
        ]
      },
      "brokerEBSVolumeInfo": [
        {
          "kafkaBrokerNodeId": "string",
          "provisionedThroughput": {
            "enabled": boolean,
            "volumeThroughput": integer
          },
          "volumeSizeGB": integer
        }
      ],
      "clientAuthentication": {
        "sasl": {
          "iam": {
            "enabled": boolean
          },
          "scram": {
            "enabled": boolean
          }
        },
        "tls": {
          "certificateAuthorityArnList": [
            "string"
          ],
          "enabled": boolean
        },
        "unauthenticated": {
          "enabled": boolean
        }
      },
      "configurationInfo": {
        "arn": "string",
        "revision": integer
      },
      "connectivityInfo": {
        "publicAccess": {
```

```
          "type": "string"
        },
        "vpcConnectivity": {
          "clientAuthentication": {
            "sasl": {
              "iam": {
                "enabled": boolean
              },
              "scram": {
                "enabled": boolean
              }
            },
            "tls": {
              "enabled": boolean
            }
          }
        }
      },
      "encryptionInfo": {
        "encryptionAtRest": {
          "dataVolumeKMSKeyId": "string"
        },
        "encryptionInTransit": {
          "clientBroker": enum,
          "inCluster": boolean
        }
      },
      "enhancedMonitoring": enum,
      "instanceType": "string",
      "kafkaVersion": "string",
      "loggingInfo": {
        "brokerLogs": {
          "cloudWatchLogs": {
            "enabled": boolean,
            "logGroup": "string"
          },
          "firehose": {
            "deliveryStream": "string",
            "enabled": boolean
          },
          "s3": {
            "bucket": "string",
            "enabled": boolean,
            "prefix": "string"
```

```
          }
        }
      },
      "numberOfBrokerNodes": integer,
      "openMonitoring": {
        "prometheus": {
          "jmxExporter": {
            "enabledInBroker": boolean
          },
          "nodeExporter": {
            "enabledInBroker": boolean
          }
        }
      },
      "storageMode": enum
    },
    "targetClusterInfo": {
      "brokerCountUpdateInfo": {
        "createdBrokerIds": [
          number
        ],
        "deletedBrokerIds": [
          number
        ]
      },
      "brokerEBSVolumeInfo": [
        {
          "kafkaBrokerNodeId": "string",
          "provisionedThroughput": {
            "enabled": boolean,
            "volumeThroughput": integer
          },
          "volumeSizeGB": integer
        }
      ],
      "clientAuthentication": {
        "sasl": {
          "iam": {
            "enabled": boolean
          },
          "scram": {
            "enabled": boolean
          }
        },
```

```
    "tls": {
      "certificateAuthorityArnList": [
        "string"
      ],
      "enabled": boolean
    },
    "unauthenticated": {
      "enabled": boolean
    }
  },
  "configurationInfo": {
    "arn": "string",
    "revision": integer
  },
  "connectivityInfo": {
    "publicAccess": {
      "type": "string"
    },
    "vpcConnectivity": {
      "clientAuthentication": {
        "sasl": {
          "iam": {
            "enabled": boolean
          },
          "scram": {
            "enabled": boolean
          }
        },
        "tls": {
          "enabled": boolean
        }
      }
    }
  },
  "encryptionInfo": {
    "encryptionAtRest": {
      "dataVolumeKMSKeyId": "string"
    },
    "encryptionInTransit": {
      "clientBroker": enum,
      "inCluster": boolean
    }
  },
  "enhancedMonitoring": enum,
```

```
      "instanceType": "string",
      "kafkaVersion": "string",
      "loggingInfo": {
        "brokerLogs": {
          "cloudWatchLogs": {
            "enabled": boolean,
            "logGroup": "string"
          },
          "firehose": {
            "deliveryStream": "string",
            "enabled": boolean
          },
          "s3": {
            "bucket": "string",
            "enabled": boolean,
            "prefix": "string"
          }
        }
      },
      "numberOfBrokerNodes": integer,
      "openMonitoring": {
        "prometheus": {
          "jmxExporter": {
            "enabledInBroker": boolean
          },
          "nodeExporter": {
            "enabledInBroker": boolean
          }
        }
      },
      "storageMode": enum
    },
    "vpcConnectionInfo": {
      "creationTime": "string",
      "owner": "string",
      "userIdentity": {
        "principalId": "string",
        "type": enum
      },
      "vpcConnectionArn": "string"
    }
  }
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

BrokerCountUpdateInfo

Contains the list of broker ids being changed during a broker count update.

createdBrokerIds

List of Kafka Broker IDs being created. If operation is INCREASE_BROKER_COUNT, the list contains numeric ids of brokers added by the operation.

> **Type**: Array of type number
> **Required**: False

deletedBrokerIds

List of Kafka Broker IDs being deleted. If operation is DECREASE_BROKER_COUNT, the list contains numeric ids of brokers removed by the operation.

> **Type**: Array of type number
> **Required**: False

BrokerEBSVolumeInfo

Specifies the EBS volume upgrade information. The broker identifier must be set to the keyword ALL. This means the changes apply to all the brokers in the cluster.

kafkaBrokerNodeId

The ID of the broker to update. The only allowed value is ALL. This means that Amazon MSK applies the same storage update to all broker nodes.

> **Type**: string

Required: True

provisionedThroughput

EBS volume provisioned throughput information.

> **Type**: [ProvisionedThroughput](#)
> **Required**: False

volumeSizeGB

Size of the EBS volume to update.

> **Type**: integer
> **Required**: False

BrokerLogs

The broker logs configuration for this MSK cluster.

cloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

> **Type**: [CloudWatchLogs](#)
> **Required**: False

firehose

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

> **Type**: [Firehose](#)
> **Required**: False

s3

Details of the Amazon S3 destination for broker logs.

> **Type**: [S3](#)

Required: False

ClientAuthentication

Includes all client authentication information.

sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either `TLS` or `TLS_PLAINTEXT`. If you choose `TLS_PLAINTEXT`, then you must also set `unauthenticated` to true.

    Type: [Sasl](#)
    Required: False

tls

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on `EncryptionInTransit` by setting `inCluster` to true and `clientBroker` to `TLS`.

    Type: [Tls](#)
    Required: False

unauthenticated

Details for ClientAuthentication using no authentication.

    Type: [Unauthenticated](#)
    Required: False

ClientBroker

Client-broker encryption in transit setting.

    TLS
    TLS_PLAINTEXT
    PLAINTEXT

CloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

enabled

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

    Type: boolean
    Required: True

logGroup

The CloudWatch log group that is the destination for broker logs.

    Type: string
    Required: False

ClusterOperationInfo

Returns information about a cluster operation.

clientRequestId

The ID of the API request that triggered this operation.

    Type: string
    Required: False

clusterArn

ARN of the cluster.

    Type: string
    Required: False

creationTime

The time that the operation was created.

Type: string

Required: False

endTime

The time at which the operation finished.

Type: string

Required: False

errorInfo

Describes the error if the operation fails.

Type: ErrorInfo

Required: False

operationArn

ARN of the cluster operation.

Type: string

Required: False

operationState

State of the cluster operation.

Type: string

Required: False

operationSteps

Steps completed during the operation.

Type: Array of type ClusterOperationStep

Required: False

operationType

Type of the cluster operation.

   Type: string
   Required: False

sourceClusterInfo

Information about cluster attributes before a cluster is updated.

   Type: MutableClusterInfo
   Required: False

targetClusterInfo

Information about cluster attributes after a cluster is updated.

   Type: MutableClusterInfo
   Required: False

vpcConnectionInfo

Description of the VPC connection for CreateVpcConnection and DeleteVpcConnection operations.

   Type: VpcConnectionInfo
   Required: False

ClusterOperationStep

Step taken during a cluster operation.

stepInfo

Information about the step and its status.

   Type: ClusterOperationStepInfo
   Required: False

stepName

The name of the step.

> **Type**: string
>
> **Required**: False

ClusterOperationStepInfo

Information about a step in an operation.

stepStatus

The step's current status.

> **Type**: string
>
> **Required**: False

ConfigurationInfo

Specifies the configuration to use for the brokers.

arn

ARN of the configuration to use.

> **Type**: string
>
> **Required**: True

revision

The revision of the configuration to use.

> **Type**: integer
>
> **Required**: True
>
> **Format**: int64
>
> **Minimum**: 1

ConnectivityInfo

Broker access controls.

publicAccess

Access control settings for the cluster's brokers.

> **Type**: [PublicAccess](#)
> **Required**: False

vpcConnectivity

VPC connection control settings for brokers

> **Type**: [VpcConnectivity](#)
> **Required**: False

DescribeClusterOperationResponse

Information about a cluster operation.

clusterOperationInfo

Cluster operation information

> **Type**: [ClusterOperationInfo](#)
> **Required**: False

EncryptionAtRest

The data-volume encryption details. You can't update encryption at rest settings for existing clusters.

dataVolumeKMSKeyId

The Amazon Resource Name (ARN) of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

> **Type**: string

Required: True

EncryptionInTransit

The settings for encrypting data in transit.

clientBroker

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

TLS means that client-broker communication is enabled with TLS only.

TLS_PLAINTEXT means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

PLAINTEXT means that client-broker communication is enabled in plaintext only.

The default value is TLS.

>   **Type**: [ClientBroker](#)
>   **Required**: False

inCluster

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

>   **Type**: boolean
>   **Required**: False

EncryptionInfo

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

encryptionAtRest

The data-volume encryption details.

Type: EncryptionAtRest
Required: False

encryptionInTransit

The details for encryption in transit.

> **Type**: EncryptionInTransit
> **Required**: False

EnhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

```
DEFAULT
PER_BROKER
PER_TOPIC_PER_BROKER
PER_TOPIC_PER_PARTITION
```

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

ErrorInfo

Returns information about an error state of the cluster.

errorCode

A number describing the error programmatically.

   Type: string
   Required: False

errorString

An optional field to provide more details about the error.

   Type: string
   Required: False

Firehose

Firehose details for BrokerLogs.

deliveryStream

The Kinesis Data Firehose delivery stream that is the destination for broker logs.

   Type: string
   Required: False

enabled

Specifies whether broker logs get sent to the specified Kinesis Data Firehose delivery stream.

   Type: boolean
   Required: True

IAM

Details for SASL/IAM client authentication.

enabled

SASL/IAM authentication is enabled or not.

    Type: boolean
    Required: False

JmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

enabledInBroker

Indicates whether you want to enable or disable the JMX Exporter.

    Type: boolean
    Required: True

LoggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

brokerLogs

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

    Type: BrokerLogs
    Required: True

MutableClusterInfo

Information about cluster attributes that can be updated via update APIs.

brokerCountUpdateInfo

Describes brokers being changed during a broker count update.

    Type: BrokerCountUpdateInfo
    Required: False

brokerEBSVolumeInfo

Specifies the size of the EBS volume and the ID of the associated broker.

> **Type**: Array of type BrokerEBSVolumeInfo
> **Required**: False

clientAuthentication

Client Authentication details.

> **Type**: ClientAuthentication
> **Required**: False

configurationInfo

Information about the changes in the configuration of the brokers.

> **Type**: ConfigurationInfo
> **Required**: False

connectivityInfo

Defines the connectivity setting of the cluster.

> **Type**: ConnectivityInfo
> **Required**: False

encryptionInfo

Encryption details.

> **Type**: EncryptionInfo
> **Required**: False

enhancedMonitoring

The monitoring level.

Type: EnhancedMonitoring

Required: False

instanceType

The broker type.

Type: string

Required: False

kafkaVersion

The Apache Kafka version.

Type: string

Required: False

loggingInfo

LoggingInfo details.

Type: LoggingInfo

Required: False

numberOfBrokerNodes

The number of broker nodes in the cluster.

Type: integer

Required: False

openMonitoring

Open monitoring details.

Type: OpenMonitoring

Required: False

storageMode

This controls storage mode for supported storage tiers.

> **Type**: StorageMode
> **Required**: False

NodeExporter

Indicates whether you want to enable or disable the Node Exporter.

enabledInBroker

Indicates whether you want to enable or disable the Node Exporter.

> **Type**: boolean
> **Required**: True

OpenMonitoring

JMX and Node monitoring for the MSK cluster.

prometheus

Prometheus exporter settings.

> **Type**: Prometheus
> **Required**: True

Prometheus

Prometheus settings for open monitoring.

jmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

> **Type**: JmxExporter
> **Required**: False

nodeExporter

Indicates whether you want to enable or disable the Node Exporter.

>   **Type**: [NodeExporter](#)
>   **Required**: False

ProvisionedThroughput

Contains information about provisioned throughput for EBS storage volumes attached to kafka broker nodes.

enabled

Provisioned throughput is enabled or not.

>   **Type**: boolean
>   **Required**: False

volumeThroughput

Throughput value of the EBS volumes for the data drive on each kafka broker node in MiB per second.

>   **Type**: integer
>   **Required**: False

PublicAccess

Broker access controls

type

DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

>   **Type**: string
>   **Required**: False

S3

The details of the Amazon S3 destination for broker logs.

bucket

The name of the S3 bucket that is the destination for broker logs.

> **Type**: string
> **Required**: False

enabled

Specifies whether broker logs get sent to the specified Amazon S3 destination.

> **Type**: boolean
> **Required**: True

prefix

The S3 prefix that is the destination for broker logs.

> **Type**: string
> **Required**: False

Sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either TLS or `TLS_PLAINTEXT`. If you choose `TLS_PLAINTEXT`, then you must also set `unauthenticated` to true.

iam

Details for ClientAuthentication using IAM.

> **Type**: [IAM](#)
> **Required**: False

scram

Details for SASL/SCRAM client authentication.

   Type: [Scram](#)
   Required: False

Scram

Details for SASL/SCRAM client authentication.

enabled

SASL/SCRAM authentication is enabled or not.

   Type: boolean
   Required: False

StorageMode

Controls storage mode for various supported storage tiers.

   LOCAL
   TIERED

Tls

Details for client authentication using TLS.

certificateAuthorityArnList

List of AWS Private CA Amazon Resource Name (ARN)s.

   Type: Array of type string
   Required: False

enabled

TLS authentication is enabled or not.

Type: boolean

Required: False

Unauthenticated

Details for allowing no client authentication.

enabled

Unauthenticated is enabled or not.

    Type: boolean

    Required: False

UserIdentity

Description of the requester that calls the API operation.

principalId

A unique identifier for the requester that calls the API operation.

    Type: string

    Required: False

type

The identity type of the requester that calls the API operation.

    Type: UserIdentityType

    Required: False

UserIdentityType

The identity type of the requester that calls the API operation.

```
AWSAccount
AWSService
```

VpcConnectionInfo

Description of the VPC connection.

creationTime

The time when Amazon MSK creates the VPC Connnection.

Type: string
Required: False

owner

The owner of the VPC Connection.

Type: string
Required: False

userIdentity

Description of the requester that calls the API operation.

Type: UserIdentity
Required: False

vpcConnectionArn

The Amazon Resource Name (ARN) of the VPC connection.

Type: string
Required: False

VpcConnectivity

VPC connection control settings for brokers.

clientAuthentication

VPC connection control settings for brokers.

Type: VpcConnectivityClientAuthentication

Required: False

VpcConnectivityClientAuthentication

Includes all client authentication information for VpcConnectivity.

sasl

Details for VpcConnectivity ClientAuthentication using SASL.

> **Type**: VpcConnectivitySasl
> **Required**: False

tls

Details for VpcConnectivity ClientAuthentication using TLS.

> **Type**: VpcConnectivityTls
> **Required**: False

VpcConnectivityIAM

Details for SASL/IAM client authentication for VpcConnectivity.

enabled

SASL/IAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

VpcConnectivitySasl

Details for client authentication using SASL for VpcConnectivity.

iam

Details for ClientAuthentication using IAM for VpcConnectivity.

> **Type**: VpcConnectivityIAM
> **Required**: False

scram

Details for SASL/SCRAM client authentication for VpcConnectivity.

> **Type**: VpcConnectivityScram
> **Required**: False

VpcConnectivityScram

Details for SASL/SCRAM client authentication for vpcConnectivity.

enabled

SASL/SCRAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

VpcConnectivityTls

Details for client authentication using TLS for vpcConnectivity.

enabled

TLS authentication is enabled or not.

> **Type**: boolean
> **Required**: False

See also

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

DescribeClusterOperation

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Cluster Operations

Represents the operations that have been performed on an MSK cluster.

URI

/v1/clusters/*clusterArn*/operations

HTTP methods

GET

Operation ID: ListClusterOperations

Returns a list of all the operations that have been performed on the specified MSK cluster.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker.

Name	Type	Required	Description
			When the result of the operation is truncated, the call returns `NextToken` in the response. To get the next batch, provide this token in your next request.
maxResults	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there are more results, the response includes a `NextToken` parameter.

Responses

Status code	Response model	Description
200	ListClusterOperationsResponse	Successful response.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.

Status code	Response model	Description
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

ListClusterOperationsResponse schema

```
{
  "clusterOperationInfoList": [
   {
     "clientRequestId": "string",
     "clusterArn": "string",
     "creationTime": "string",
     "endTime": "string",
     "errorInfo": {
       "errorCode": "string",
       "errorString": "string"
     },
     "operationArn": "string",
     "operationState": "string",
     "operationSteps": [
       {
         "stepInfo": {
           "stepStatus": "string"
         },
         "stepName": "string"
       }
     ],
     "operationType": "string",
     "sourceClusterInfo": {
       "brokerCountUpdateInfo": {
         "createdBrokerIds": [
           number
         ],
         "deletedBrokerIds": [
           number
```

```
          ]
        },
        "brokerEBSVolumeInfo": [
          {
            "kafkaBrokerNodeId": "string",
            "provisionedThroughput": {
              "enabled": boolean,
              "volumeThroughput": integer
            },
            "volumeSizeGB": integer
          }
        ],
        "clientAuthentication": {
          "sasl": {
            "iam": {
              "enabled": boolean
            },
            "scram": {
              "enabled": boolean
            }
          },
          "tls": {
            "certificateAuthorityArnList": [
              "string"
            ],
            "enabled": boolean
          },
          "unauthenticated": {
            "enabled": boolean
          }
        },
        "configurationInfo": {
          "arn": "string",
          "revision": integer
        },
        "connectivityInfo": {
          "publicAccess": {
            "type": "string"
          },
          "vpcConnectivity": {
            "clientAuthentication": {
              "sasl": {
                "iam": {
                  "enabled": boolean
```

```
          },
          "scram": {
            "enabled": boolean
          }
        },
        "tls": {
          "enabled": boolean
        }
      }
    }
  },
  "encryptionInfo": {
    "encryptionAtRest": {
      "dataVolumeKMSKeyId": "string"
    },
    "encryptionInTransit": {
      "clientBroker": enum,
      "inCluster": boolean
    }
  },
  "enhancedMonitoring": enum,
  "instanceType": "string",
  "kafkaVersion": "string",
  "loggingInfo": {
    "brokerLogs": {
      "cloudWatchLogs": {
        "enabled": boolean,
        "logGroup": "string"
      },
      "firehose": {
        "deliveryStream": "string",
        "enabled": boolean
      },
      "s3": {
        "bucket": "string",
        "enabled": boolean,
        "prefix": "string"
      }
    }
  },
  "numberOfBrokerNodes": integer,
  "openMonitoring": {
    "prometheus": {
      "jmxExporter": {
```

```
              "enabledInBroker": boolean
            },
            "nodeExporter": {
              "enabledInBroker": boolean
            }
          }
        },
        "storageMode": enum
      },
      "targetClusterInfo": {
        "brokerCountUpdateInfo": {
          "createdBrokerIds": [
            number
          ],
          "deletedBrokerIds": [
            number
          ]
        },
        "brokerEBSVolumeInfo": [
          {
            "kafkaBrokerNodeId": "string",
            "provisionedThroughput": {
              "enabled": boolean,
              "volumeThroughput": integer
            },
            "volumeSizeGB": integer
          }
        ],
        "clientAuthentication": {
          "sasl": {
          "iam": {
            "enabled": boolean
          },
          "scram": {
            "enabled": boolean
          }
        },
        "tls": {
          "certificateAuthorityArnList": [
            "string"
          ],
          "enabled": boolean
        },
        "unauthenticated": {
```

```
          "enabled": boolean
      }
    },
    "configurationInfo": {
      "arn": "string",
      "revision": integer
    },
    "connectivityInfo": {
      "publicAccess": {
        "type": "string"
      },
      "vpcConnectivity": {
        "clientAuthentication": {
          "sasl": {
            "iam": {
              "enabled": boolean
            },
            "scram": {
              "enabled": boolean
            }
          },
          "tls": {
            "enabled": boolean
          }
        }
      }
    },
    "encryptionInfo": {
      "encryptionAtRest": {
        "dataVolumeKMSKeyId": "string"
      },
      "encryptionInTransit": {
        "clientBroker": enum,
        "inCluster": boolean
      }
    },
    "enhancedMonitoring": enum,
    "instanceType": "string",
    "kafkaVersion": "string",
    "loggingInfo": {
      "brokerLogs": {
        "cloudWatchLogs": {
          "enabled": boolean,
          "logGroup": "string"
```

```
        },
        "firehose": {
          "deliveryStream": "string",
          "enabled": boolean
        },
        "s3": {
          "bucket": "string",
          "enabled": boolean,
          "prefix": "string"
        }
      }
    },
    "numberOfBrokerNodes": integer,
    "openMonitoring": {
      "prometheus": {
        "jmxExporter": {
          "enabledInBroker": boolean
        },
        "nodeExporter": {
          "enabledInBroker": boolean
        }
      }
    },
    "storageMode": enum
  },
  "vpcConnectionInfo": {
    "creationTime": "string",
    "owner": "string",
    "userIdentity": {
      "principalId": "string",
      "type": enum
    },
    "vpcConnectionArn": "string"
  }
}
],
"nextToken": "string"
}
```

Error schema

```
{
  "invalidParameter": "string",
```

```
    "message": "string"
}
```

Properties

BrokerCountUpdateInfo

Contains the list of broker ids being changed during a broker count update.

createdBrokerIds

List of Kafka Broker IDs being created. If operation is INCREASE_BROKER_COUNT, the list contains numeric ids of brokers added by the operation.

  Type: Array of type number
  Required: False

deletedBrokerIds

List of Kafka Broker IDs being deleted. If operation is DECREASE_BROKER_COUNT, the list contains numeric ids of brokers removed by the operation.

  Type: Array of type number
  Required: False

BrokerEBSVolumeInfo

Specifies the EBS volume upgrade information. The broker identifier must be set to the keyword ALL. This means the changes apply to all the brokers in the cluster.

kafkaBrokerNodeId

The ID of the broker to update. The only allowed value is ALL. This means that Amazon MSK applies the same storage update to all broker nodes.

  Type: string
  Required: True

provisionedThroughput

EBS volume provisioned throughput information.

> **Type**: ProvisionedThroughput
>
> **Required**: False

volumeSizeGB

Size of the EBS volume to update.

> **Type**: integer
>
> **Required**: False

BrokerLogs

The broker logs configuration for this MSK cluster.

cloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

> **Type**: CloudWatchLogs
>
> **Required**: False

firehose

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

> **Type**: Firehose
>
> **Required**: False

s3

Details of the Amazon S3 destination for broker logs.

> **Type**: S3
>
> **Required**: False

ClientAuthentication

Includes all client authentication information.

sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on
`EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to
either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set
`unauthenticated` to true.

> **Type**: Sasl
> **Required**: False

tls

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on
`EncryptionInTransit` by setting `inCluster` to true and `clientBroker` to TLS.

> **Type**: Tls
> **Required**: False

unauthenticated

Details for ClientAuthentication using no authentication.

> **Type**: Unauthenticated
> **Required**: False

ClientBroker

Client-broker encryption in transit setting.

> TLS
> TLS_PLAINTEXT
> PLAINTEXT

CloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

enabled

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

> **Type**: boolean
> **Required**: True

logGroup

The CloudWatch log group that is the destination for broker logs.

> **Type**: string
> **Required**: False

ClusterOperationInfo

Returns information about a cluster operation.

clientRequestId

The ID of the API request that triggered this operation.

> **Type**: string
> **Required**: False

clusterArn

ARN of the cluster.

> **Type**: string
> **Required**: False

creationTime

The time that the operation was created.

Type: string

Required: False

endTime

The time at which the operation finished.

Type: string

Required: False

errorInfo

Describes the error if the operation fails.

Type: [ErrorInfo](#)

Required: False

operationArn

ARN of the cluster operation.

Type: string

Required: False

operationState

State of the cluster operation.

Type: string

Required: False

operationSteps

Steps completed during the operation.

Type: Array of type [ClusterOperationStep](#)

Required: False

operationType

Type of the cluster operation.

>**Type**: string
>**Required**: False

sourceClusterInfo

Information about cluster attributes before a cluster is updated.

>**Type**: MutableClusterInfo
>**Required**: False

targetClusterInfo

Information about cluster attributes after a cluster is updated.

>**Type**: MutableClusterInfo
>**Required**: False

vpcConnectionInfo

Description of the VPC connection for CreateVpcConnection and DeleteVpcConnection operations.

>**Type**: VpcConnectionInfo
>**Required**: False

ClusterOperationStep

Step taken during a cluster operation.

stepInfo

Information about the step and its status.

>**Type**: ClusterOperationStepInfo
>**Required**: False

stepName

The name of the step.

> **Type**: string
> **Required**: False

ClusterOperationStepInfo

Information about a step in an operation.

stepStatus

The step's current status.

> **Type**: string
> **Required**: False

ConfigurationInfo

Specifies the configuration to use for the brokers.

arn

ARN of the configuration to use.

> **Type**: string
> **Required**: True

revision

The revision of the configuration to use.

> **Type**: integer
> **Required**: True
> **Format**: int64
> **Minimum**: 1

ConnectivityInfo

Broker access controls.

publicAccess

Access control settings for the cluster's brokers.

> **Type**: [PublicAccess](#)
> **Required**: False

vpcConnectivity

VPC connection control settings for brokers

> **Type**: [VpcConnectivity](#)
> **Required**: False

EncryptionAtRest

The data-volume encryption details. You can't update encryption at rest settings for existing clusters.

dataVolumeKMSKeyId

The Amazon Resource Name (ARN) of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

> **Type**: string
> **Required**: True

EncryptionInTransit

The settings for encrypting data in transit.

clientBroker

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

TLS means that client-broker communication is enabled with TLS only.

TLS_PLAINTEXT means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

PLAINTEXT means that client-broker communication is enabled in plaintext only.

The default value is TLS.

   Type: ClientBroker
   Required: False

inCluster

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

   Type: boolean
   Required: False

EncryptionInfo

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

encryptionAtRest

The data-volume encryption details.

   Type: EncryptionAtRest
   Required: False

encryptionInTransit

The details for encryption in transit.

   Type: EncryptionInTransit
   Required: False

EnhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see [Monitoring](#).

```
DEFAULT
PER_BROKER
PER_TOPIC_PER_BROKER
PER_TOPIC_PER_PARTITION
```

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string
Required: False

message

The description of the error.

Type: string
Required: False

ErrorInfo

Returns information about an error state of the cluster.

errorCode

A number describing the error programmatically.

Type: string
Required: False

errorString

An optional field to provide more details about the error.

Type: string
Required: False

Firehose

Firehose details for BrokerLogs.

deliveryStream

The Kinesis Data Firehose delivery stream that is the destination for broker logs.

Type: string
Required: False

enabled

Specifies whether broker logs get sent to the specified Kinesis Data Firehose delivery stream.

Type: boolean
Required: True

IAM

Details for SASL/IAM client authentication.

enabled

SASL/IAM authentication is enabled or not.

Type: boolean
Required: False

JmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

enabledInBroker

Indicates whether you want to enable or disable the JMX Exporter.

> **Type**: boolean
> **Required**: True

ListClusterOperationsResponse

The response contains an array containing cluster operation information and a next token if the response is truncated. Displays operations of the type DECREASE_BROKER_COUNT in results list (after a successful broker removal operation).

clusterOperationInfoList

An array of cluster operation information objects.

> **Type**: Array of type ClusterOperationInfo
> **Required**: False

nextToken

If the response of ListClusterOperations is truncated, Amazon MSK returns a NextToken in the response. Send this NextToken in your subsequent request to ListClusterOperations.

> **Type**: string
> **Required**: False

LoggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

brokerLogs

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

> **Type**: BrokerLogs
> **Required**: True

MutableClusterInfo

Information about cluster attributes that can be updated via update APIs.

brokerCountUpdateInfo

Describes brokers being changed during a broker count update.

   Type: [BrokerCountUpdateInfo](#)
   Required: False

brokerEBSVolumeInfo

Specifies the size of the EBS volume and the ID of the associated broker.

   Type: Array of type [BrokerEBSVolumeInfo](#)
   Required: False

clientAuthentication

Client Authentication details.

   Type: [ClientAuthentication](#)
   Required: False

configurationInfo

Information about the changes in the configuration of the brokers.

   Type: [ConfigurationInfo](#)
   Required: False

connectivityInfo

Defines the connectivity setting of the cluster.

   Type: [ConnectivityInfo](#)
   Required: False

encryptionInfo

Encryption details.

> **Type**: [EncryptionInfo](#)
> **Required**: False

enhancedMonitoring

The monitoring level.

> **Type**: [EnhancedMonitoring](#)
> **Required**: False

instanceType

The broker type.

> **Type**: string
> **Required**: False

kafkaVersion

The Apache Kafka version.

> **Type**: string
> **Required**: False

loggingInfo

LoggingInfo details.

> **Type**: [LoggingInfo](#)
> **Required**: False

numberOfBrokerNodes

The number of broker nodes in the cluster.

Type: integer
Required: False

openMonitoring

Open monitoring details.

Type: OpenMonitoring
Required: False

storageMode

This controls storage mode for supported storage tiers.

Type: StorageMode
Required: False

NodeExporter

Indicates whether you want to enable or disable the Node Exporter.

enabledInBroker

Indicates whether you want to enable or disable the Node Exporter.

Type: boolean
Required: True

OpenMonitoring

JMX and Node monitoring for the MSK cluster.

prometheus

Prometheus exporter settings.

Type: Prometheus
Required: True

Prometheus

Prometheus settings for open monitoring.

jmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

>**Type**: [JmxExporter](#)
>**Required**: False

nodeExporter

Indicates whether you want to enable or disable the Node Exporter.

>**Type**: [NodeExporter](#)
>**Required**: False

ProvisionedThroughput

Contains information about provisioned throughput for EBS storage volumes attached to kafka broker nodes.

enabled

Provisioned throughput is enabled or not.

>**Type**: boolean
>**Required**: False

volumeThroughput

Throughput value of the EBS volumes for the data drive on each kafka broker node in MiB per second.

>**Type**: integer
>**Required**: False

PublicAccess

Broker access controls

type

DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

   Type: string
   Required: False

S3

The details of the Amazon S3 destination for broker logs.

bucket

The name of the S3 bucket that is the destination for broker logs.

   Type: string
   Required: False

enabled

Specifies whether broker logs get sent to the specified Amazon S3 destination.

   Type: boolean
   Required: True

prefix

The S3 prefix that is the destination for broker logs.

   Type: string
   Required: False

Sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set `unauthenticated` to true.

iam

Details for ClientAuthentication using IAM.

> **Type**: [IAM](#)
> **Required**: False

scram

Details for SASL/SCRAM client authentication.

> **Type**: [Scram](#)
> **Required**: False

Scram

Details for SASL/SCRAM client authentication.

enabled

SASL/SCRAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

StorageMode

Controls storage mode for various supported storage tiers.

> LOCAL
>
> TIERED

Tls

Details for client authentication using TLS.

certificateAuthorityArnList

List of AWS Private CA Amazon Resource Name (ARN)s.

   Type: Array of type string
   Required: False

enabled

TLS authentication is enabled or not.

   Type: boolean
   Required: False

Unauthenticated

Details for allowing no client authentication.

enabled

Unauthenticated is enabled or not.

   Type: boolean
   Required: False

UserIdentity

Description of the requester that calls the API operation.

principalId

A unique identifier for the requester that calls the API operation.

   Type: string
   Required: False

type

The identity type of the requester that calls the API operation.

>   **Type**: [UserIdentityType](#)
>   **Required**: False

UserIdentityType

The identity type of the requester that calls the API operation.

>   AWSAccount
>
>   AWSService

VpcConnectionInfo

Description of the VPC connection.

creationTime

The time when Amazon MSK creates the VPC Connnection.

>   **Type**: string
>   **Required**: False

owner

The owner of the VPC Connection.

>   **Type**: string
>   **Required**: False

userIdentity

Description of the requester that calls the API operation.

>   **Type**: [UserIdentity](#)
>   **Required**: False

vpcConnectionArn

The Amazon Resource Name (ARN) of the VPC connection.

> **Type**: string
> **Required**: False

VpcConnectivity

VPC connection control settings for brokers.

clientAuthentication

VPC connection control settings for brokers.

> **Type**: [VpcConnectivityClientAuthentication](#)
> **Required**: False

VpcConnectivityClientAuthentication

Includes all client authentication information for VpcConnectivity.

sasl

Details for VpcConnectivity ClientAuthentication using SASL.

> **Type**: [VpcConnectivitySasl](#)
> **Required**: False

tls

Details for VpcConnectivity ClientAuthentication using TLS.

> **Type**: [VpcConnectivityTls](#)
> **Required**: False

VpcConnectivityIAM

Details for SASL/IAM client authentication for VpcConnectivity.

enabled

SASL/IAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

VpcConnectivitySasl

Details for client authentication using SASL for VpcConnectivity.

iam

Details for ClientAuthentication using IAM for VpcConnectivity.

> **Type**: VpcConnectivityIAM
> **Required**: False

scram

Details for SASL/SCRAM client authentication for VpcConnectivity.

> **Type**: VpcConnectivityScram
> **Required**: False

VpcConnectivityScram

Details for SASL/SCRAM client authentication for vpcConnectivity.

enabled

SASL/SCRAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

VpcConnectivityTls

Details for client authentication using TLS for vpcConnectivity.

enabled

TLS authentication is enabled or not.

> **Type**: boolean
> **Required**: False

See also

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

ListClusterOperations

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Cluster Security

Use this resource to update the security settings of a cluster.

URI

/v1/clusters/*clusterArn*/security

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PATCH

Operation ID: UpdateSecurity

Updates security settings of the specified cluster.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[UpdateSecurityResponse](#)	200 response

Status code	Response model	Description
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

Schemas

Request bodies

PATCH schema

```
{
  "clientAuthentication": {
    "sasl": {
      "iam": {
```

```
        "enabled": boolean
      },
      "scram": {
        "enabled": boolean
      }
    },
    "tls": {
      "certificateAuthorityArnList": [
        "string"
      ],
      "enabled": boolean
    },
    "unauthenticated": {
      "enabled": boolean
    }
  },
  "currentVersion": "string",
  "encryptionInfo": {
    "encryptionAtRest": {
      "dataVolumeKMSKeyId": "string"
    },
    "encryptionInTransit": {
      "clientBroker": enum,
      "inCluster": boolean
    }
  }
}
```

Response bodies

UpdateSecurityResponse schema

```
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
```

```
}
```

Properties

ClientAuthentication

Includes all client authentication information.

sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set `unauthenticated` to true.

> **Type**: [Sasl](#)
> **Required**: False

tls

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on `EncryptionInTransit` by setting `inCluster` to true and `clientBroker` to TLS.

> **Type**: [Tls](#)
> **Required**: False

unauthenticated

Details for ClientAuthentication using no authentication.

> **Type**: [Unauthenticated](#)
> **Required**: False

ClientBroker

Client-broker encryption in transit setting.

> TLS
> TLS_PLAINTEXT

```
PLAINTEXT
```

EncryptionAtRest

The data-volume encryption details. You can't update encryption at rest settings for existing clusters.

dataVolumeKMSKeyId

The Amazon Resource Name (ARN) of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

    Type: string
    Required: True

EncryptionInTransit

The settings for encrypting data in transit.

clientBroker

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

TLS means that client-broker communication is enabled with TLS only.

TLS_PLAINTEXT means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

PLAINTEXT means that client-broker communication is enabled in plaintext only.

The default value is TLS.

    Type: ClientBroker
    Required: False

inCluster

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

> **Type**: boolean
> **Required**: False

EncryptionInfo

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

encryptionAtRest

The data-volume encryption details.

> **Type**: EncryptionAtRest
> **Required**: False

encryptionInTransit

The details for encryption in transit.

> **Type**: EncryptionInTransit
> **Required**: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

Type: string
Required: False

IAM

Details for SASL/IAM client authentication.

enabled

SASL/IAM authentication is enabled or not.

Type: boolean
Required: False

Sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either `TLS` or `TLS_PLAINTEXT`. If you choose `TLS_PLAINTEXT`, then you must also set `unauthenticated` to true.

iam

Details for ClientAuthentication using IAM.

Type: [IAM](#)
Required: False

scram

Details for SASL/SCRAM client authentication.

Type: [Scram](#)
Required: False

Scram

Details for SASL/SCRAM client authentication.

enabled

SASL/SCRAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

Tls

Details for client authentication using TLS.

certificateAuthorityArnList

List of AWS Private CA Amazon Resource Name (ARN)s.

> **Type**: Array of type string
> **Required**: False

enabled

TLS authentication is enabled or not.

> **Type**: boolean
> **Required**: False

Unauthenticated

Details for allowing no client authentication.

enabled

Unauthenticated is enabled or not.

> **Type**: boolean
> **Required**: False

UpdateSecurityRequest

Request body for UpdateSecurity.

clientAuthentication

The client authentication info details.

>   **Type**: ClientAuthentication
>   **Required**: False

currentVersion

Current cluster version.

>   **Type**: string
>   **Required**: True

encryptionInfo

The encryption info details.

>   **Type**: EncryptionInfo
>   **Required**: False

UpdateSecurityResponse

Response body for UpdateSecurity.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

>   **Type**: string
>   **Required**: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

>   **Type**: string
>   **Required**: False

See also

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

UpdateSecurity

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

Clusters

Use this resource to create an Amazon MSK cluster and to get a list of existing clusters.

URI

`/v1/clusters`

HTTP methods

GET

Operation ID: `ListClusters`

Returns a list of all the MSK clusters.

Query parameters

Name	Type	Required	Description
`nextToken`	String	False	The paginated results marker. When the result of the operation is truncated, the call returns `NextToken` in the response. To get the next batch, provide this token in your next request.
`clusterNameFilter`	String	False	Specify a prefix of the name of the clusters that you want to list. The service lists all the clusters whose names start with this prefix.
`maxResults`	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there are more results, the response includes a `NextToken` parameter.

Responses

Status code	Response model	Description
200	ListClustersRespon se	Successful response.
400	Error	The request isn't valid because the input is incorrect . Correct your input and then submit it again.
401	Error	The request is not authorize d. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning the correct headers.

Responses

Status code	Response model	Description
200	None	The default response for a CORS method.

POST

Operation ID: `CreateCluster`

Creates a new MSK cluster. The following Python 3.6 examples shows how you can create a cluster that's distributed over two Availability Zones. Before you run this Python script, replace the example subnet and security-group IDs with the IDs of your subnets and security group. When you create an MSK cluster, its brokers get evenly distributed over a number of Availability Zones that's equal to the number of subnets that you specify in the `BrokerNodeGroupInfo` parameter. In this example, you can add a third subnet to get a cluster that's distributed over three Availability Zones.

```
import boto3

client = boto3.client('kafka')

response = client.create_cluster(
    BrokerNodeGroupInfo={
        'BrokerAZDistribution': 'DEFAULT',
        'ClientSubnets': [
            'subnet-012345678901fedcba',
            'subnet-9876543210abcdef01'
        ],
        'InstanceType': 'kafka.m5.large',
        'SecurityGroups': [
            'sg-012345abcdef789789'
        ]
    },
    ClusterName='SalesCluster',
    EncryptionInfo={
        'EncryptionInTransit': {
            'ClientBroker': 'TLS_PLAINTEXT',
            'InCluster': True
        }
    },
```

```
    EnhancedMonitoring='PER_TOPIC_PER_BROKER',
    KafkaVersion='2.2.1',
    NumberOfBrokerNodes=2
)

print(response)
```

Responses

Status code	Response model	Description
200	CreateClusterResponse	Successful response.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
409	Error	This cluster name already exists. Retry your request using another name.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying

Status code	Response model	Description
		your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

POST schema

```
{
  "brokerNodeGroupInfo": {
    "brokerAZDistribution": enum,
    "clientSubnets": [
      "string"
    ],
    "connectivityInfo": {
      "publicAccess": {
        "type": "string"
      },
      "vpcConnectivity": {
        "clientAuthentication": {
          "sasl": {
            "iam": {
              "enabled": boolean
            },
            "scram": {
              "enabled": boolean
            }
          },
          "tls": {
            "enabled": boolean
          }
        }
      }
    },
    "instanceType": "string",
    "securityGroups": [
      "string"
```

```
    ],
    "storageInfo": {
      "ebsStorageInfo": {
        "provisionedThroughput": {
          "enabled": boolean,
          "volumeThroughput": integer
        },
        "volumeSize": integer
      }
    },
    "zoneIds": [
      "string"
    ]
  },
  "clientAuthentication": {
    "sasl": {
      "iam": {
        "enabled": boolean
      },
      "scram": {
        "enabled": boolean
      }
    },
    "tls": {
      "certificateAuthorityArnList": [
        "string"
      ],
      "enabled": boolean
    },
    "unauthenticated": {
      "enabled": boolean
    }
  },
  "clusterName": "string",
  "configurationInfo": {
    "arn": "string",
    "revision": integer
  },
  "encryptionInfo": {
    "encryptionAtRest": {
      "dataVolumeKMSKeyId": "string"
    },
    "encryptionInTransit": {
      "clientBroker": enum,
```

```
      "inCluster": boolean
    }
  },
  "enhancedMonitoring": enum,
  "kafkaVersion": "string",
  "loggingInfo": {
    "brokerLogs": {
      "cloudWatchLogs": {
        "enabled": boolean,
        "logGroup": "string"
      },
      "firehose": {
        "deliveryStream": "string",
        "enabled": boolean
      },
      "s3": {
        "bucket": "string",
        "enabled": boolean,
        "prefix": "string"
      }
    }
  },
  "numberOfBrokerNodes": integer,
  "openMonitoring": {
    "prometheus": {
      "jmxExporter": {
        "enabledInBroker": boolean
      },
      "nodeExporter": {
        "enabledInBroker": boolean
      }
    }
  },
  "storageMode": enum,
  "tags": {
  }
}
```

Response bodies

ListClustersResponse schema

```
{
```

```
    "clusterInfoList": [
      {
        "activeOperationArn": "string",
        "brokerNodeGroupInfo": {
          "brokerAZDistribution": enum,
          "clientSubnets": [
            "string"
          ],
          "connectivityInfo": {
            "publicAccess": {
              "type": "string"
            },
            "vpcConnectivity": {
              "clientAuthentication": {
                "sasl": {
                  "iam": {
                    "enabled": boolean
                  },
                  "scram": {
                    "enabled": boolean
                  }
                },
                "tls": {
                  "enabled": boolean
                }
              }
            }
          }
        },
        "instanceType": "string",
        "securityGroups": [
          "string"
        ],
        "storageInfo": {
          "ebsStorageInfo": {
            "provisionedThroughput": {
              "enabled": boolean,
              "volumeThroughput": integer
            },
            "volumeSize": integer
          }
        },
        "zoneIds": [
          "string"
        ]
```

```
        },
        "clientAuthentication": {
          "sasl": {
            "iam": {
              "enabled": boolean
            },
            "scram": {
              "enabled": boolean
            }
          },
          "tls": {
            "certificateAuthorityArnList": [
              "string"
            ],
            "enabled": boolean
          },
          "unauthenticated": {
            "enabled": boolean
          }
        },
        "clusterArn": "string",
        "clusterName": "string",
        "creationTime": "string",
        "currentBrokerSoftwareInfo": {
          "configurationArn": "string",
          "configurationRevision": integer,
          "kafkaVersion": "string"
        },
        "currentVersion": "string",
        "customerActionStatus": enum,
        "encryptionInfo": {
          "encryptionAtRest": {
            "dataVolumeKMSKeyId": "string"
          },
          "encryptionInTransit": {
            "clientBroker": enum,
            "inCluster": boolean
          }
        },
        "enhancedMonitoring": enum,
        "loggingInfo": {
          "brokerLogs": {
            "cloudWatchLogs": {
              "enabled": boolean,
```

```
            "logGroup": "string"
          },
          "firehose": {
            "deliveryStream": "string",
            "enabled": boolean
          },
          "s3": {
            "bucket": "string",
            "enabled": boolean,
            "prefix": "string"
          }
        }
      },
      "numberOfBrokerNodes": integer,
      "openMonitoring": {
        "prometheus": {
          "jmxExporter": {
            "enabledInBroker": boolean
          },
          "nodeExporter": {
            "enabledInBroker": boolean
          }
        }
      },
      "state": enum,
      "stateInfo": {
        "code": "string",
        "message": "string"
      },
      "storageMode": enum,
      "tags": {
      },
      "zookeeperConnectString": "string",
      "zookeeperConnectStringTls": "string"
    }
  ],
  "nextToken": "string"
}
```

CreateClusterResponse schema

```
{
  "clusterArn": "string",
```

```
    "clusterName": "string",
    "state": enum
}
```

Error schema

```
{
    "invalidParameter": "string",
    "message": "string"
}
```

Properties

BrokerAZDistribution

This parameter is currently not in use.

```
    DEFAULT
```

BrokerLogs

The broker logs configuration for this MSK cluster.

cloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

> **Type**: CloudWatchLogs
> **Required**: False

firehose

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

> **Type**: Firehose
> **Required**: False

s3

Details of the Amazon S3 destination for broker logs.

Type: [S3](S3)

Required: False

BrokerNodeGroupInfo

Describes the setup to be used for the broker nodes in the cluster.

brokerAZDistribution

This parameter is currently not in use.

> **Type**: BrokerAZDistribution
>
> **Required**: False

clientSubnets

The list of subnets to connect to in the client virtual private cloud (VPC). Amazon creates elastic network interfaces inside these subnets. Client applications use elastic network interfaces to produce and consume data.

If you use the US West (N. California) Region, specify exactly two subnets. For other Regions where Amazon MSK is available, you can specify either two or three subnets. The subnets that you specify must be in distinct Availability Zones. When you create a cluster, Amazon MSK distributes the broker nodes evenly across the subnets that you specify.

Client subnets can't occupy the Availability Zone with ID `use1-az3`.

> **Type**: Array of type string
>
> **Required**: True

connectivityInfo

Information about the cluster's connectivity setting.

> **Type**: ConnectivityInfo
>
> **Required**: False

instanceType

The type of Amazon EC2 instances to use for brokers. The following instance types are allowed: kafka.m5.large, kafka.m5.xlarge, kafka.m5.2xlarge, kafka.m5.4xlarge, kafka.m5.8xlarge, kafka.m5.12xlarge, kafka.m5.16xlarge, and kafka.m5.24xlarge.

> **Type**: string
> **Required**: True
> **MinLength**: 5
> **MaxLength**: 32

securityGroups

The security groups to associate with the elastic network interfaces in order to specify who can connect to and communicate with the Amazon MSK cluster. If you don't specify a security group, Amazon MSK uses the default security group associated with the VPC. If you specify security groups that were shared with you, you must ensure that you have permissions to them. Specifically, you need the `ec2:DescribeSecurityGroups` permission.

> **Type**: Array of type string
> **Required**: False

storageInfo

Contains information about storage volumes attached to Amazon MSK broker nodes.

> **Type**: StorageInfo
> **Required**: False

zoneIds

The zoneIds for brokers in customer account.

> **Type**: Array of type string
> **Required**: False

BrokerSoftwareInfo

Information about the current software installed on the cluster.

configurationArn

The Amazon Resource Name (ARN) of the configuration used for the cluster. This field isn't visible in this preview release.

Type: string

Required: False

configurationRevision

The revision of the configuration to use. This field isn't visible in this preview release.

Type: integer

Required: False

Format: int64

kafkaVersion

The version of Apache Kafka. You can use Amazon MSK to create clusters that use Apache Kafka versions 1.1.1 and 2.2.1.

Type: string

Required: False

ClientAuthentication

Includes all client authentication information.

sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either TLS or TLS_PLAINTEXT. If you choose TLS_PLAINTEXT, then you must also set `unauthenticated` to true.

Type: [Sasl](#)

Required: False

tls

Details for ClientAuthentication using TLS. To turn on TLS access control, you must also turn on `EncryptionInTransit` by setting `inCluster` to true and `clientBroker` to TLS.

> **Type**: [Tls](#)
> **Required**: False

unauthenticated

Details for ClientAuthentication using no authentication.

> **Type**: [Unauthenticated](#)
> **Required**: False

ClientBroker

Client-broker encryption in transit setting.

> TLS
> TLS_PLAINTEXT
> PLAINTEXT

CloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

enabled

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

> **Type**: boolean
> **Required**: True

logGroup

The CloudWatch log group that is the destination for broker logs.

> **Type**: string

Required: False

ClusterInfo

Returns information about a cluster.

activeOperationArn

Arn of active cluster operation.

> **Type**: string
> **Required**: False

brokerNodeGroupInfo

Information about the broker nodes.

> **Type**: [BrokerNodeGroupInfo](#)
> **Required**: False

clientAuthentication

Includes all client authentication information.

> **Type**: [ClientAuthentication](#)
> **Required**: False

clusterArn

The Amazon Resource Name (ARN) that uniquely identifies the cluster.

> **Type**: string
> **Required**: False

clusterName

The name of the cluster.

> **Type**: string

Required: False

creationTime

The time when the cluster was created.

   Type: string
   Required: False

currentBrokerSoftwareInfo

Information about the version of software currently deployed on the brokers in the cluster.

   Type: [BrokerSoftwareInfo](#)
   Required: False

currentVersion

The current version of the MSK cluster. Cluster versions aren't simple integers. You can obtain the
current version by describing the cluster. An example version is KTVPDKIKX0DER.

   Type: string
   Required: False

customerActionStatus

Determines if there is an action required from the customer.

   Type: [CustomerActionStatus](#)
   Required: False

encryptionInfo

Includes all encryption-related information.

   Type: [EncryptionInfo](#)
   Required: False

enhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see Monitoring.

    Type: EnhancedMonitoring
    Required: False

loggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

    Type: LoggingInfo
    Required: False

numberOfBrokerNodes

The number of broker nodes in the cluster.

    Type: integer
    Required: False

openMonitoring

Settings for open monitoring using Prometheus.

    Type: OpenMonitoring
    Required: False

state

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to MAINTENANCE when it starts the certificate-update operation. It sets it back to ACTIVE when the update is done. While a cluster is in the MAINTENANCE state, you can continue to produce and consume data, but you can't perform any

update operations on it. You can perform update operations on a cluster when it is in the `ACTIVE` state.

> **Type**: ClusterState
> **Required**: False

stateInfo

Includes information of the cluster state.

> **Type**: StateInfo
> **Required**: False

storageMode

This controls storage mode for supported storage tiers.

> **Type**: StorageMode
> **Required**: False

tags

Tags attached to the cluster.

> **Type**: object
> **Required**: False

zookeeperConnectString

The connection string to use to connect to zookeeper cluster on plaintext port.

> **Type**: string
> **Required**: False

zookeeperConnectStringTls

The connection string to use to connect to the Apache ZooKeeper cluster on a TLS port.

> **Type**: string

Required: False

ClusterState

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to `MAINTENANCE` when it starts the certificate-update operation. It sets it back to `ACTIVE` when the update is done. While a cluster is in the `MAINTENANCE` state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the `ACTIVE` state.

```
ACTIVE
CREATING
UPDATING
DELETING
FAILED
MAINTENANCE
REBOOTING_BROKER
HEALING
```

ConfigurationInfo

Specifies the configuration to use for the brokers.

arn

ARN of the configuration to use.

Type: string
Required: True

revision

The revision of the configuration to use.

Type: integer
Required: True

Format: int64

Minimum: 1

ConnectivityInfo

Broker access controls.

publicAccess

Access control settings for the cluster's brokers.

> **Type**: [PublicAccess](#)
> **Required**: False

vpcConnectivity

VPC connection control settings for brokers

> **Type**: [VpcConnectivity](#)
> **Required**: False

CreateClusterRequest

Creates a cluster.

brokerNodeGroupInfo

Information about the broker nodes in the cluster.

> **Type**: [BrokerNodeGroupInfo](#)
> **Required**: True

clientAuthentication

Includes all client authentication related information.

> **Type**: [ClientAuthentication](#)
> **Required**: False

clusterName

The name of the cluster.

Type: string

Required: True

MinLength: 1

MaxLength: 64

configurationInfo

Represents the configuration that you want MSK to use for the cluster.

Type: [ConfigurationInfo](#)

Required: False

encryptionInfo

Includes all encryption-related information.

Type: [EncryptionInfo](#)

Required: False

enhancedMonitoring

Specifies the level of monitoring for the MSK cluster. The possible values are DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER.

Type: [EnhancedMonitoring](#)

Required: False

kafkaVersion

The version of Apache Kafka. You can use Amazon MSK to create clusters that use Apache Kafka versions 1.1.1 and 2.2.1.

Type: string

Required: True

MinLength: 1

MaxLength: 128

loggingInfo

Logging Info details.

> **Type**: LoggingInfo
>
> **Required**: False

numberOfBrokerNodes

The number of broker nodes in the cluster.

> **Type**: integer
>
> **Required**: True

openMonitoring

The settings for open monitoring.

> **Type**: OpenMonitoringInfo
>
> **Required**: False

storageMode

This controls storage mode for supported storage tiers.

> **Type**: StorageMode
>
> **Required**: False

tags

Create tags when creating the cluster.

> **Type**: object
>
> **Required**: False

CreateClusterResponse

Returns information about the created cluster.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: False

clusterName

The name of the MSK cluster.

> **Type**: string
> **Required**: False

state

The state of the cluster. Amazon MSK automatically renews certificates on clusters every 13 months. It sets the state of the cluster to `MAINTENANCE` when it starts the certificate-update operation. It sets it back to `ACTIVE` when the update is done. While a cluster is in the `MAINTENANCE` state, you can continue to produce and consume data, but you can't perform any update operations on it. You can perform update operations on a cluster when it is in the `ACTIVE` state.

> **Type**: ClusterState
> **Required**: False

CustomerActionStatus

A type of an action required from the customer.

```
CRITICAL_ACTION_REQUIRED
ACTION_RECOMMENDED
NONE
```

EBSStorageInfo

Contains information about the EBS storage volumes attached to the broker nodes.

provisionedThroughput

EBS volume provisioned throughput information.

> **Type**: ProvisionedThroughput
> **Required**: False

volumeSize

The size in GiB of the EBS volume for the data drive on each broker node.

> **Type**: integer
> **Required**: False
> **Minimum**: 1
> **Maximum**: 16384

EncryptionAtRest

The data-volume encryption details. You can't update encryption at rest settings for existing clusters.

dataVolumeKMSKeyId

The Amazon Resource Name (ARN) of the Amazon KMS key for encrypting data at rest. If you don't specify a KMS key, MSK creates one for you and uses it.

> **Type**: string
> **Required**: True

EncryptionInTransit

The settings for encrypting data in transit.

clientBroker

Indicates the encryption setting for data in transit between clients and brokers. You must set it to one of the following values.

TLS means that client-broker communication is enabled with TLS only.

TLS_PLAINTEXT means that client-broker communication is enabled for both TLS-encrypted, as well as plaintext data.

PLAINTEXT means that client-broker communication is enabled in plaintext only.

The default value is TLS.

> **Type**: ClientBroker
> **Required**: False

inCluster

When set to true, it indicates that data communication among the broker nodes of the cluster is encrypted. When set to false, the communication happens in plaintext.

The default value is true.

> **Type**: boolean
> **Required**: False

EncryptionInfo

Includes encryption-related information, such as the Amazon KMS key used for encrypting data at rest and whether you want MSK to encrypt your data in transit.

encryptionAtRest

The data-volume encryption details.

> **Type**: EncryptionAtRest
> **Required**: False

encryptionInTransit

The details for encryption in transit.

> **Type**: EncryptionInTransit
> **Required**: False

EnhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see [Monitoring](#).

```
DEFAULT
PER_BROKER
PER_TOPIC_PER_BROKER
PER_TOPIC_PER_PARTITION
```

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

Firehose

Firehose details for BrokerLogs.

deliveryStream

The Kinesis Data Firehose delivery stream that is the destination for broker logs.

> **Type**: string
> **Required**: False

enabled

Specifies whether broker logs get sent to the specified Kinesis Data Firehose delivery stream.

> **Type**: boolean
> **Required**: True

IAM

Details for SASL/IAM client authentication.

enabled

SASL/IAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

JmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

enabledInBroker

Indicates whether you want to enable or disable the JMX Exporter.

> **Type**: boolean
> **Required**: True

JmxExporterInfo

JMX Exporter details.

enabledInBroker

JMX Exporter being enabled in broker.

> **Type**: boolean
> **Required**: True

ListClustersResponse

The response contains an array containing cluster information and a next token if the response is truncated.

clusterInfoList

Information on each of the MSK clusters in the response.

   Type: Array of type [ClusterInfo](#)
   Required: False

nextToken

The paginated results marker. When the result of a `ListClusters` operation is truncated, the call returns `NextToken` in the response. To get another batch of clusters, provide this token in your next request.

   Type: string
   Required: False

LoggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

brokerLogs

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

   Type: [BrokerLogs](#)
   Required: True

NodeExporter

Indicates whether you want to enable or disable the Node Exporter.

enabledInBroker

Indicates whether you want to enable or disable the Node Exporter.

Type: boolean
Required: True

NodeExporterInfo

Node Exporter details.

enabledInBroker

Node Exporter being enabled in broker.

Type: boolean
Required: True

OpenMonitoring

JMX and Node monitoring for the MSK cluster.

prometheus

Prometheus exporter settings.

Type: Prometheus
Required: True

OpenMonitoringInfo

JMX and Node monitoring for cluster.

prometheus

Prometheus details.

Type: PrometheusInfo
Required: True

Prometheus

Prometheus settings for open monitoring.

jmxExporter

Indicates whether you want to enable or disable the JMX Exporter.

> **Type**: JmxExporter
> **Required**: False

nodeExporter

Indicates whether you want to enable or disable the Node Exporter.

> **Type**: NodeExporter
> **Required**: False

PrometheusInfo

Prometheus details.

jmxExporter

JMX Exporter details.

> **Type**: JmxExporterInfo
> **Required**: False

nodeExporter

Node Exporter details.

> **Type**: NodeExporterInfo
> **Required**: False

ProvisionedThroughput

Contains information about provisioned throughput for EBS storage volumes attached to kafka broker nodes.

enabled

Provisioned throughput is enabled or not.

Type: boolean
Required: False

volumeThroughput

Throughput value of the EBS volumes for the data drive on each kafka broker node in MiB per second.

Type: integer
Required: False

PublicAccess

Broker access controls

type

DISABLED means that public access is turned off. SERVICE_PROVIDED_EIPS means that public access is turned on.

Type: string
Required: False

S3

The details of the Amazon S3 destination for broker logs.

bucket

The name of the S3 bucket that is the destination for broker logs.

Type: string
Required: False

enabled

Specifies whether broker logs get sent to the specified Amazon S3 destination.

Type: boolean

Required: True

prefix

The S3 prefix that is the destination for broker logs.

> **Type**: string
> **Required**: False

Sasl

Details for client authentication using SASL. To turn on SASL, you must also turn on `EncryptionInTransit` by setting `inCluster` to true. You must set `clientBroker` to either TLS or `TLS_PLAINTEXT`. If you choose `TLS_PLAINTEXT`, then you must also set `unauthenticated` to true.

iam

Details for ClientAuthentication using IAM.

> **Type**: [IAM](#)
> **Required**: False

scram

Details for SASL/SCRAM client authentication.

> **Type**: [Scram](#)
> **Required**: False

Scram

Details for SASL/SCRAM client authentication.

enabled

SASL/SCRAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

StateInfo

Includes information about the state of the cluster.

code

If the cluster is in an unusable state, this field contains the code that describes the issue.

> **Type**: string
> **Required**: False

message

If the cluster is in an unusable state, this field contains a message that describes the issue.

> **Type**: string
> **Required**: False

StorageInfo

Contains information about storage volumes attached to Amazon MSK broker nodes.

ebsStorageInfo

EBS volume information.

> **Type**: EBSStorageInfo
> **Required**: False

StorageMode

Controls storage mode for various supported storage tiers.

> LOCAL
> TIERED

Tls

Details for client authentication using TLS.

certificateAuthorityArnList

List of AWS Private CA Amazon Resource Name (ARN)s.

>**Type**: Array of type string
>**Required**: False

enabled

TLS authentication is enabled or not.

>**Type**: boolean
>**Required**: False

Unauthenticated

Details for allowing no client authentication.

enabled

Unauthenticated is enabled or not.

>**Type**: boolean
>**Required**: False

VpcConnectivity

VPC connection control settings for brokers.

clientAuthentication

VPC connection control settings for brokers.

>**Type**: [VpcConnectivityClientAuthentication](#)
>**Required**: False

VpcConnectivityClientAuthentication

Includes all client authentication information for VpcConnectivity.

sasl

Details for VpcConnectivity ClientAuthentication using SASL.

> **Type**: VpcConnectivitySasl
> **Required**: False

tls

Details for VpcConnectivity ClientAuthentication using TLS.

> **Type**: VpcConnectivityTls
> **Required**: False

VpcConnectivityIAM

Details for SASL/IAM client authentication for VpcConnectivity.

enabled

SASL/IAM authentication is enabled or not.

> **Type**: boolean
> **Required**: False

VpcConnectivitySasl

Details for client authentication using SASL for VpcConnectivity.

iam

Details for ClientAuthentication using IAM for VpcConnectivity.

> **Type**: VpcConnectivityIAM
> **Required**: False

scram

Details for SASL/SCRAM client authentication for VpcConnectivity.

Type: VpcConnectivityScram

Required: False

VpcConnectivityScram

Details for SASL/SCRAM client authentication for vpcConnectivity.

enabled

SASL/SCRAM authentication is enabled or not.

> **Type**: boolean
>
> **Required**: False

VpcConnectivityTls

Details for client authentication using TLS for vpcConnectivity.

enabled

TLS authentication is enabled or not.

> **Type**: boolean
>
> **Required**: False

See also

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

ListClusters

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

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

CreateCluster

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

Clusters clusterArn Client-vpc-connection

URI

/v1/clusters/*clusterArn*/client-vpc-connection

HTTP methods

OPTIONS

Enable CORS by returning correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that

Name	Type	Required	Description
			uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: `RejectClientVpcConnection`

Reject client VPC connection.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[RejectClientVpcConnectionResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.

Status code	Response model	Description
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "vpcConnectionArn": "string"
}
```

Response bodies

RejectClientVpcConnectionResponse schema

```
{
```

```
  }
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

RejectClientVpcConnectionRequest

Reject VPC Connection

vpcConnectionArn

VPC Connection Amazon Resource Name (ARN).

> **Type**: string
> **Required**: True

MinLength: 1

RejectClientVpcConnectionResponse

Blocks client connections connecting to the cluster

See also

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

RejectClientVpcConnection

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Clusters clusterArn Client-vpc-connections

URI

/v1/clusters/*clusterArn*/client-vpc-connections

HTTP methods

GET

Operation ID: ListClientVpcConnections

List client VPC connections.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker. When the result of the operation is truncated, the call returns `NextToken` in the response. To get the next batch, provide this token in your next request.
maxResults	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there are more results, the response includes a `NextToken` parameter.

Responses

Status code	Response model	Description
200	ListClientVpcConnectionsResponse	Successful response.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

ListClientVpcConnectionsResponse schema

```
{
  "clientVpcConnections": [
    {
      "authentication": "string",
      "creationTime": "string",
      "owner": "string",
      "state": enum,
      "vpcConnectionArn": "string"
    }
  ],
  "nextToken": "string"
}
```

Error schema

```
{
  "invalidParameter": "string",
```

```
    "message": "string"
}
```

Properties

ClientVpcConnection

VPC Connection description

authentication

The type of private link authentication.

    Type: string
    Required: False

creationTime

The time which the VPC Connnection is created.

    Type: string
    Required: False

owner

The Owner of the VPC Connection.

    Type: string
    Required: False

state

State of the Remote VPC Connection.

    Type: VpcConnectionState
    Required: False

vpcConnectionArn

The Amazon Resource Name (ARN) of the Remote VPC.

Type: string
Required: True

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string
Required: False

message

The description of the error.

Type: string
Required: False

ListClientVpcConnectionsResponse

The response contains an array vpc connections.

clientVpcConnections

An array of client vpc connections information objects.

Type: Array of type ClientVpcConnection
Required: False

nextToken

If the response of ListClientVpcConnections is truncated, it returns a NextToken in the response. This Nexttoken should be sent in the subsequent request to ListClientVpcConnections.

Type: string
Required: False

VpcConnectionState

State of the vpc connection

```
CREATING
AVAILABLE
INACTIVE
UPDATING
DEACTIVATING
DELETING
FAILED
REJECTED
REJECTING
```

See also

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

ListClientVpcConnections

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Clusters clusterArn Notifications

URI

/v1/clusters/*clusterArn*/notifications

HTTP methods

GET

Operation ID: `ListClusterHealthAlertsResources`

Returns information about all health alerts in a cluster.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker. When the result of the operation is truncated, the call returns `NextToken` in the response. To get the next batch, provide this token in your next request.
maxResults	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there are more results, the

Name	Type	Required	Description
			response includes a `NextToken` parameter.

Responses

Status code	Response model	Description
200	[ListClusterHealthAlertsResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

OPTIONS

Enable CORS by returning correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

ListClusterHealthAlertsResponse schema

```
{
  "clusterAlertsInfoList": [
    {
      "clusterAlerts": {
        "category": enum,
        "clusterComponent": [
          "string"
        ],
        "createdDate": "string",
        "name": enum
      },
      "clusterArn": "string",
      "customerActionStatus": enum
```

```
      }
    ],
    "nextToken": "string"
}
```

Error schema

```
{
    "invalidParameter": "string",
    "message": "string"
}
```

Properties

ClusterAlerts

Cluster alert details for the cluster.

category

The category of the cluster alert.

> **Type**: EventCategory
> **Required**: False

clusterComponent

A list of brokers that have cluster alerts.

> **Type**: Array of type string
> **Required**: False

createdDate

The time at which the alert was created.

> **Type**: string
> **Required**: False

name

Name of the alert type.

> **Type**: EventType
> **Required**: False

ClusterAlertsInfo

The info and list of alerts for a cluster.

clusterAlerts

The cluster alerts details for the cluster.

> **Type**: ClusterAlerts
> **Required**: False

clusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: False

customerActionStatus

The type of action required in response to a cluster alert.

> **Type**: CustomerActionStatus
> **Required**: False

CustomerActionStatus

A type of an action required from the customer.

```
CRITICAL_ACTION_REQUIRED
ACTION_RECOMMENDED
NONE
```

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

EventCategory

The category of the cluster alert.

```
ISSUE
NOTIFICATION
SCHEDULED_CHANGE
```

EventType

Name of the alert type.

```
DATA_DISK_OVERFLOW
DATA_DISK_USAGE_80
DATA_DISK_USAGE_60
```

ListClusterHealthAlertsResponse

The response contains an array containing cluster alerts information and a next token if the response is truncated.

clusterAlertsInfoList

A detailed list of cluster alerts for a cluster.

    Type: Array of type [ClusterAlertsInfo](#)
    Required: False

nextToken

If the response of ListClusterHealthAlerts is truncated, it returns a NextToken in the response. This NextToken should be sent in the subsequent request to ListClusterHealthAlerts.

    Type: string
    Required: False

See also

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

ListClusterHealthAlertsResources

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Clusters clusterArn Policy

URI

/v1/clusters/*clusterArn*/policy

HTTP methods

DELETE

Operation ID: DeleteClusterPolicy

Delete cluster policy.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[DeleteClusterPolicyResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.

Status code	Response model	Description
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

GET

Operation ID: `GetClusterPolicy`

Get cluster policy.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[GetClusterPolicyResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

OPTIONS

Enable CORS by returning correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: PutClusterPolicy

Create or update cluster policy.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[PutClusterPolicyResponse](#)	Successful response.

Status code	Response model	Description
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

Schemas

Request bodies

PUT schema

```
{
  "currentVersion": "string",
  "policy": "string"
```

```
}
```

Response bodies

DeleteClusterPolicyResponse schema

```
{
}
```

GetClusterPolicyResponse schema

```
{
   "currentVersion": "string",
   "policy": "string"
}
```

PutClusterPolicyResponse schema

```
{
   "currentVersion": "string"
}
```

Error schema

```
{
   "invalidParameter": "string",
   "message": "string"
}
```

Properties

DeleteClusterPolicyResponse

Delete resource policy for MSK cluster

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

GetClusterPolicyResponse

Returns resource policy for MSK cluster

currentVersion

Resource policy version

> **Type**: string
> **Required**: False

policy

Resource policy attached to the MSK cluster

> **Type**: string
> **Required**: False

PutClusterPolicyRequest

Create or update resource policy for cluster

currentVersion

Current cluster policy version.

Type: string

Required: False

MinLength: 1

policy

Resource policy for cluster

   Type: string

   Required: True

   MinLength: 1

   MaxLength: 20480

PutClusterPolicyResponse

Create or update cluster policy

currentVersion

Resource policy version

   Type: string

   Required: False

See also

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

DeleteClusterPolicy

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- AWS SDK for PHP V3

- AWS SDK for Python

- AWS SDK for Ruby V3

GetClusterPolicy

- AWS Command Line Interface

- AWS SDK for .NET

- AWS SDK for C++

- AWS SDK for Go v2

- AWS SDK for Java V2

- AWS SDK for JavaScript V3

- AWS SDK for PHP V3

- AWS SDK for Python

- AWS SDK for Ruby V3

PutClusterPolicy

- AWS Command Line Interface

- AWS SDK for .NET

- AWS SDK for C++

- AWS SDK for Go v2

- AWS SDK for Java V2

- AWS SDK for JavaScript V3

- AWS SDK for PHP V3

- AWS SDK for Python

- AWS SDK for Ruby V3

Compatible Apache Kafka Versions

The Apache Kafka versions to which you can update the cluster.

URI

`/v1/compatible-kafka-versions`

HTTP methods

GET

Operation ID: `GetCompatibleKafkaVersions`

Returns a list of the Apache Kafka versions to which you can update this cluster.

Query parameters

Name	Type	Required	Description
clusterArn	String	False	The Amazon Resource Name (ARN) of the cluster check.

Responses

Status code	Response model	Description
200	[GetCompatibleKafka VersionsResponse](#)	200 response
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.

Status code	Response model	Description
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning the correct headers.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

GetCompatibleKafkaVersionsResponse schema

```
{
  "compatibleKafkaVersions": [
    {
      "sourceVersion": "string",
      "targetVersions": [
        "string"
```

```
        ]
    }
  ]
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

CompatibleKafkaVersion

Contains source Apache Kafka versions and compatible target Apache Kafka versions.

sourceVersion

An Apache Kafka version.

Type: string
Required: False

targetVersions

A list of Apache Kafka versions.

Type: Array of type string
Required: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string

Required: False

message

The description of the error.

Type: string

Required: False

GetCompatibleKafkaVersionsResponse

Response body for GetCompatibleKafkaVersions.

compatibleKafkaVersions

A list of CompatibleKafkaVersion objects.

Type: Array of type [CompatibleKafkaVersion](#)

Required: False

See also

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

GetCompatibleKafkaVersions

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

Configuration

Represents an MSK configuration. Use this path to describe the configuration.

URI

/v1/configurations/*arn*

HTTP methods

DELETE

Operation ID: DeleteConfiguration

Deletes a cluster configuration and all its revisions.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.

Responses

Status code	Response model	Description
200	[DeleteConfiguration Response](#)	200 response
400	[Error](#)	The request isn't valid because the input is incorrect

Status code	Response model	Description
		. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

GET

Operation ID: `DescribeConfiguration`

Returns a description of this MSK configuration.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an

Name	Type	Required	Description
			MSK configuration and all of its revisions .

Responses

Status code	Response model	Description
200	[DescribeConfigurat ionResponse](#)	200 response
400	[Error](#)	The request isn't valid because the input is incorrect . Correct your input and then submit it again.
401	[Error](#)	The request is not authorize d. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	[Error](#)	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: `UpdateConfiguration`

Creates a new revision of the cluster configuration. The configuration must be in the `ACTIVE` state.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.

Responses

Status code	Response model	Description
200	<u>UpdateConfiguratio nResponse</u>	200 response
400	<u>Error</u>	The request isn't valid because the input is incorrect . Correct your input and then submit it again.
401	<u>Error</u>	The request is not authorize d. The provided credentials couldn't be validated.
403	<u>Error</u>	Access forbidden. Check your credentials and then retry your request.
404	<u>Error</u>	The resource could not be found due to incorrect input. Correct the input, then retry the request.
409	<u>Error</u>	This cluster name already exists. Retry your request using another name.
429	<u>Error</u>	429 response
500	<u>Error</u>	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	<u>Error</u>	503 response

Schemas

Request bodies

PUT schema

```
{
   "description": "string",
   "serverProperties": "string"
}
```

Response bodies

DeleteConfigurationResponse schema

```
{
   "Arn": "string",
   "state": enum
}
```

DescribeConfigurationResponse schema

```
{
   "arn": "string",
   "creationTime": "string",
   "description": "string",
   "kafkaVersions": [
     "string"
   ],
   "latestRevision": {
     "creationTime": "string",
     "description": "string",
     "revision": integer
   },
   "name": "string",
   "state": enum
}
```

UpdateConfigurationResponse schema

```
{
```

```
    "arn": "string",
    "latestRevision": {
      "creationTime": "string",
      "description": "string",
      "revision": integer
    }
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

ConfigurationRevision

Describes a configuration revision.

creationTime

The time when the configuration revision was created.

> **Type**: string
> **Required**: True

description

The description of the configuration revision.

> **Type**: string
> **Required**: False

revision

The revision number.

> **Type**: integer

Required: True
Format: int64

ConfigurationState

State of a kafka configuration

```
ACTIVE
DELETING
DELETE_FAILED
```

DeleteConfigurationResponse

Returns information about the deleted configuration.

Arn

The Amazon Resource Name (ARN) of the configuration.

Type: string
Required: False

state

State of the configuration.

Type: ConfigurationState
Required: False

DescribeConfigurationResponse

Response body for DescribeConfiguration.

arn

The Amazon Resource Name (ARN) of the configuration.

Type: string
Required: True

creationTime

The time when the configuration was created.

>   **Type**: string
>   **Required**: True

description

The description of the configuration.

>   **Type**: string
>   **Required**: True

kafkaVersions

The versions of Apache Kafka with which you can use this MSK configuration.

>   **Type**: Array of type string
>   **Required**: True

latestRevision

Latest revision of the configuration.

>   **Type**: ConfigurationRevision
>   **Required**: True

name

The name of the configuration. Configuration names are strings that match the regex "^[0-9A-Za-z][0-9A-Za-z-]{0,}$".

>   **Type**: string
>   **Required**: True

state

State of the configuration.

Type: ConfigurationState

Required: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string

Required: False

message

The description of the error.

Type: string

Required: False

UpdateConfigurationRequest

Update an MSK configuration.

description

The description of the configuration.

Type: string

Required: False

serverProperties

Contents of the `server.properties` file. When using the API, you must ensure that the contents of the file are base64 encoded. When using the console, the SDK, or the CLI, the contents of `server.properties` can be in plaintext.

Type: string

Required: True

UpdateConfigurationResponse

Response body for UpdateConfiguration

arn

The Amazon Resource Name (ARN) of the configuration.

> **Type**: string
> **Required**: False

latestRevision

Latest revision of the configuration.

> **Type**: ConfigurationRevision
> **Required**: False

See also

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

DeleteConfiguration

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

- [AWS SDK for Ruby V3](#)

DescribeConfiguration

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateConfiguration

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Configuration Revision

Represents a specific revision of an MSK configuration.

URI

`/v1/configurations/`*`arn`*`/revisions/`*`revision`*

HTTP methods

GET

Operation ID: `DescribeConfigurationRevision`

Returns a description of this revision of the configuration.

Path parameters

Name	Type	Required	Description
revision	String	True	A string that uniquely identifies a revision of an MSK configuration.
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.

Responses

Status code	Response model	Description
200	[DescribeConfigurationRevisionResponse](#)	200 response
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.

Status code	Response model	Description
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
revision	String	True	A string that uniquely identifies a revision of an MSK configuration.
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions .

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

DescribeConfigurationRevisionResponse schema

```
{
    "arn": "string",
    "creationTime": "string",
    "description": "string",
    "revision": integer,
    "serverProperties": "string"
}
```

Error schema

```
{
    "invalidParameter": "string",
    "message": "string"
}
```

Properties

DescribeConfigurationRevisionResponse

Response body for DescribeConfigurationRevision.

arn

The Amazon Resource Name (ARN) of the configuration.

> **Type**: string
> **Required**: True

creationTime

The time when the configuration was created.

> **Type**: string
> **Required**: True

description

The description of the configuration.

> **Type**: string
> **Required**: True

revision

The revision number.

> **Type**: integer
> **Required**: True
> **Format**: int64

serverProperties

Contents of the `server.properties` file. When using the API, you must ensure that the contents of the file are base64 encoded. When using the console, the SDK, or the CLI, the contents of `server.properties` can be in plaintext.

> **Type**: string
> **Required**: True

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string

Required: False

message

The description of the error.

Type: string

Required: False

See also

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

DescribeConfigurationRevision

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Configuration Revisions

Represents the revisions of an MSK configuration.

URI

/v1/configurations/*arn*/revisions

HTTP methods

GET

Operation ID: `ListConfigurationRevisions`

Returns a list of all the revisions of an MSK configuration.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions .

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker. When the result of the operation is truncated, the call returns `NextToken` in the response. To get the next batch, provide this token in your next request.
maxResults	String	False	The maximum number of results to return in the response (default

Name	Type	Required	Description
			maximum 100 results per API call). If there are more results, the response includes a `NextToken` parameter.

Responses

Status code	Response model	Description
200	[ListConfigurationR evisionsResponse](#)	200 response
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying

Status code	Response model	Description
		your request might resolve the issue.
503	[Error](#)	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Response bodies

ListConfigurationRevisionsResponse schema

```
{
  "nextToken": "string",
```

```
  "revisions": [
    {
      "creationTime": "string",
      "description": "string",
      "revision": integer
    }
  ]
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

ConfigurationRevision

Describes a configuration revision.

creationTime

The time when the configuration revision was created.

> **Type**: string
> **Required**: True

description

The description of the configuration revision.

> **Type**: string
> **Required**: False

revision

The revision number.

Type: integer

Required: True

Format: int64

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string

Required: False

message

The description of the error.

Type: string

Required: False

ListConfigurationRevisionsResponse

Information about revisions of an MSK configuration.

nextToken

Paginated results marker.

Type: string

Required: False

revisions

List of ConfigurationRevision objects.

Type: Array of type ConfigurationRevision

Required: False

See also

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

ListConfigurationRevisions

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Configurations

A collection of MSK configurations.

URI

`/v1/configurations`

HTTP methods

GET

Operation ID: `ListConfigurations`

Returns a list of all the MSK configurations.

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker. When the result of the operation is truncated, the call returns NextToken in the response. To get the next batch, provide this token in your next request.
maxResults	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there are more results, the response includes a NextToken parameter.

Responses

Status code	Response model	Description
200	[ListConfigurations Response](#)	200 response
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.

Status code	Response model	Description
401	Error	The request is not authorize d. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning the correct headers.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

POST

Operation ID: `CreateConfiguration`

Creates a new MSK configuration. To see an example of how to use this operation, first save the following text to a file and name the file `config-file.txt`.

```
auto.create.topics.enable = true

zookeeper.connection.timeout.ms = 1000

log.roll.ms = 604800000
```

Now run the following Python 3.6 script in the folder where you saved `config-file.txt`. This script uses the properties specified in `config-file.txt` to create a configuration named `SalesClusterConfiguration`. This configuration can work with Apache Kafka versions 1.1.1 and 2.1.0.

```python
import boto3

client = boto3.client('kafka')

config_file = open('config-file.txt', 'r')

server_properties = config_file.read()

response = client.create_configuration(
    Name='SalesClusterConfiguration',
    Description='The configuration to use on all sales clusters.',
    KafkaVersions=['1.1.1', '2.1.0'],
    ServerProperties=server_properties
)

print(response)
```

Responses

Status code	Response model	Description
200	CreateConfiguratio nResponse	200 response
400	Error	The request isn't valid because the input is incorrect

Status code	Response model	Description
		. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
409	Error	This cluster name already exists. Retry your request using another name.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

POST schema

```
{
  "description": "string",
```

```
  "kafkaVersions": [
    "string"
  ],
  "name": "string",
  "serverProperties": "string"
}
```

Response bodies

ListConfigurationsResponse schema

```
{
  "configurations": [
    {
      "arn": "string",
      "creationTime": "string",
      "description": "string",
      "kafkaVersions": [
        "string"
      ],
      "latestRevision": {
        "creationTime": "string",
        "description": "string",
        "revision": integer
      },
      "name": "string",
      "state": enum
    }
  ],
  "nextToken": "string"
}
```

CreateConfigurationResponse schema

```
{
  "arn": "string",
  "creationTime": "string",
  "latestRevision": {
    "creationTime": "string",
    "description": "string",
    "revision": integer
  },
```

```
  "name": "string",
  "state": enum
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

Configuration

Represents an MSK Configuration.

arn

The Amazon Resource Name (ARN) of the configuration.

    Type: string

    Required: True

creationTime

The time when the configuration was created.

    Type: string

    Required: True

description

The description of the configuration.

    Type: string

    Required: True

kafkaVersions

An array of the versions of Apache Kafka with which you can use this MSK configuration. You can use this configuration for an MSK cluster only if the Apache Kafka version specified for the cluster appears in this array.

> **Type**: Array of type string
> **Required**: False

latestRevision

Latest revision of the configuration.

> **Type**: ConfigurationRevision
> **Required**: True

name

The name of the configuration. Configuration names are strings that match the regex "^[0-9A-Za-z][0-9A-Za-z-]{0,}$".

> **Type**: string
> **Required**: True

state

State of the configuration.

> **Type**: ConfigurationState
> **Required**: False

ConfigurationRevision

Describes a configuration revision.

creationTime

The time when the configuration revision was created.

> **Type**: string

Required: True

description

The description of the configuration revision.

    Type: string
    Required: False

revision

The revision number.

    Type: integer
    Required: True
    Format: int64

ConfigurationState

State of a kafka configuration

```
ACTIVE
DELETING
DELETE_FAILED
```

CreateConfigurationRequest

Request body for CreateConfiguration.

description

The description of the configuration.

    Type: string
    Required: False

kafkaVersions

The versions of Apache Kafka with which you can use this MSK configuration.

Type: Array of type string

Required: False

name

The name of the configuration. Configuration names are strings that match the regex "^[0-9A-Za-z][0-9A-Za-z-]{0,}$".

Type: string

Required: True

serverProperties

Contents of the `server.properties` file. When using the API, you must ensure that the contents of the file are base64 encoded. When using the console, the SDK, or the CLI, the contents of `server.properties` can be in plaintext.

Type: string

Required: True

CreateConfigurationResponse

Response body for CreateConfiguration

arn

The Amazon Resource Name (ARN) of the configuration.

Type: string

Required: False

creationTime

The time when the configuration was created.

Type: string

Required: False

latestRevision

Latest revision of the configuration.

    Type: ConfigurationRevision

    Required: False

name

The name of the configuration. Configuration names are strings that match the regex "^[0-9A-Za-z][0-9A-Za-z-]{0,}$".

    Type: string

    Required: False

state

State of the configuration.

    Type: ConfigurationState

    Required: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

    Type: string

    Required: False

message

The description of the error.

    Type: string

    Required: False

ListConfigurationsResponse

The response contains an array of Configuration and a next token if the response is truncated.

configurations

An array of MSK configurations.

>   **Type**: Array of type [Configuration](#)
>   **Required**: False

nextToken

The paginated results marker. When the result of a `ListConfigurations` operation is truncated, the call returns `NextToken` in the response. To get another batch of configurations, provide this token in your next request.

>   **Type**: string
>   **Required**: False

See also

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

ListConfigurations

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateConfiguration

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Monitoring Properties

The options for monitoring an Amazon MSK cluster. You can specify which Apache Kafka metrics you want Amazon MSK to gather and send to Amazon CloudWatch. You can also configure open monitoring to gather metrics with Prometheus or Prometheus-compatible tools.

URI

`/v1/clusters/`*`clusterArn`*`/monitoring`

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: UpdateMonitoring

Updates the monitoring settings for the cluster. You can use this operation to specify which Apache Kafka metrics you want Amazon MSK to send to Amazon CloudWatch. You can also specify settings for open monitoring with Prometheus. The following Python 3.6 example enables open monitoring with the Node Exporter. It also sets enhanced monitoring to PER_BROKER. For more information about monitoring, see [Monitoring](#).

```python
import boto3
import time

client = boto3.client('kafka')

update_monitoring_response = client.update_monitoring(
    ClusterArn='arn:aws:kafka:us-east-1:0123456789019:cluster/SalesCluster/abcd1234-
abcd-cafe-abab-9876543210ab-4',
    CurrentVersion='K12V3IB1VIZHHY',
    EnhancedMonitoring='PER_BROKER',
    OpenMonitoring={"Prometheus":{"JmxExporter":
{"EnabledInBroker":False},"NodeExporter":{"EnabledInBroker":True}}}
)

operation_arn = update_monitoring_response['ClusterOperationArn']
print('The ARN of the update operation is ' + operation_arn)

describe_cluster_operation_response =
 client.describe_cluster_operation(ClusterOperationArn=operation_arn)

operation_state = describe_cluster_operation_response['ClusterOperationInfo']
['OperationState']
print('The status of the update operation is ' + operation_state)
```

```
updated = False

while not updated:
    print('Sleeping for 15 seconds before checking to see if the monitoring update is
 done...')
    time.sleep(15)
    describe_cluster_operation_response =
 client.describe_cluster_operation(ClusterOperationArn=operation_arn)
    operation_state = describe_cluster_operation_response['ClusterOperationInfo']
['OperationState']
    if 'UPDATE_COMPLETE' == operation_state:
        updated = True
        print('You have successfully updated the monitoring settings.')
```

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[UpdateMonitoringRequest](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.

Status code	Response model	Description
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "currentVersion": "string",
  "enhancedMonitoring": enum,
  "loggingInfo": {
    "brokerLogs": {
      "cloudWatchLogs": {
        "enabled": boolean,
        "logGroup": "string"
      },
      "firehose": {
        "deliveryStream": "string",
        "enabled": boolean
      },
      "s3": {
```

```
                "bucket": "string",
                "enabled": boolean,
                "prefix": "string"
            }
        }
    },
    "openMonitoring": {
        "prometheus": {
            "jmxExporter": {
                "enabledInBroker": boolean
            },
            "nodeExporter": {
                "enabledInBroker": boolean
            }
        }
    }
}
```

Response bodies

UpdateMonitoringRequest schema

```
{
    "clusterArn": "string",
    "clusterOperationArn": "string"
}
```

Error schema

```
{
    "invalidParameter": "string",
    "message": "string"
}
```

Properties

BrokerLogs

The broker logs configuration for this MSK cluster.

cloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

>   **Type**: [CloudWatchLogs](#)
>   **Required**: False

firehose

Details of the Kinesis Data Firehose delivery stream that is the destination for broker logs.

>   **Type**: [Firehose](#)
>   **Required**: False

s3

Details of the Amazon S3 destination for broker logs.

>   **Type**: [S3](#)
>   **Required**: False

CloudWatchLogs

Details of the CloudWatch Logs destination for broker logs.

enabled

Specifies whether broker logs get sent to the specified CloudWatch Logs destination.

>   **Type**: boolean
>   **Required**: True

logGroup

The CloudWatch log group that is the destination for broker logs.

>   **Type**: string
>   **Required**: False

EnhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster. This property has three possible values: DEFAULT, PER_BROKER, and PER_TOPIC_PER_BROKER. For a list of the metrics associated with each of these three levels of monitoring, see [Monitoring](#).

```
DEFAULT
PER_BROKER
PER_TOPIC_PER_BROKER
PER_TOPIC_PER_PARTITION
```

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

Firehose

Firehose details for BrokerLogs.

deliveryStream

The Kinesis Data Firehose delivery stream that is the destination for broker logs.

> **Type**: string
> **Required**: False

enabled

Specifies whether broker logs get sent to the specified Kinesis Data Firehose delivery stream.

> **Type**: boolean
> **Required**: True

JmxExporterInfo

JMX Exporter details.

enabledInBroker

JMX Exporter being enabled in broker.

> **Type**: boolean
> **Required**: True

LoggingInfo

You can configure your MSK cluster to send broker logs to different destination types. This is a container for the configuration details related to broker logs.

brokerLogs

You can configure your MSK cluster to send broker logs to different destination types. This configuration specifies the details of these destinations.

> **Type**: [BrokerLogs](#)
> **Required**: True

NodeExporterInfo

Node Exporter details.

enabledInBroker

Node Exporter being enabled in broker.

> **Type**: boolean
> **Required**: True

OpenMonitoringInfo

JMX and Node monitoring for cluster.

prometheus

Prometheus details.

> **Type**: [PrometheusInfo](#)
> **Required**: True

PrometheusInfo

Prometheus details.

jmxExporter

JMX Exporter details.

> **Type**: [JmxExporterInfo](#)
> **Required**: False

nodeExporter

Node Exporter details.

> **Type**: [NodeExporterInfo](#)
> **Required**: False

S3

The details of the Amazon S3 destination for broker logs.

bucket

The name of the S3 bucket that is the destination for broker logs.

> **Type**: string
> **Required**: False

enabled

Specifies whether broker logs get sent to the specified Amazon S3 destination.

> **Type**: boolean
> **Required**: True

prefix

The S3 prefix that is the destination for broker logs.

> **Type**: string
> **Required**: False

UpdateMonitoringRequest

Request body for UpdateMonitoring.

currentVersion

The version of the MSK cluster to update. Cluster versions aren't simple numbers. You can describe an MSK cluster to find its version. When this update operation is successful, it generates a new cluster version.

> **Type**: string
> **Required**: True

enhancedMonitoring

Specifies which Apache Kafka metrics Amazon MSK gathers and sends to Amazon CloudWatch for this cluster.

> **Type**: EnhancedMonitoring
> **Required**: False

loggingInfo

LoggingInfo details.

> **Type**: LoggingInfo

Required: False

openMonitoring

The settings for open monitoring.

> **Type**: OpenMonitoringInfo
> **Required**: False

UpdateMonitoringResponse

Request body for UpdateMonitoring.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

> **Type**: string
> **Required**: False

See also

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

UpdateMonitoring

- AWS Command Line Interface
- [AWS SDK for .NET](AWS SDK for .NET)
- [AWS SDK for C++](AWS SDK for C++)
- [AWS SDK for Go v2](AWS SDK for Go v2)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Reboot Broker

URI

`/v1/clusters/`*`clusterArn`*`/reboot-broker`

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: `RebootBroker`

Reboots a broker. In a given cluster, you can reboot one broker at a time.

To reboot a broker, wait for the cluster status to be ACTIVE. This operation returns an error if you invoke it while the cluster status is HEALING. You must wait for the status to change from HEALING to ACTIVE before you reboot the broker.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	RebootBrokerResponse	Successful response.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.

Status code	Response model	Description
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "brokerIds": [
    "string"
  ]
}
```

Response bodies

RebootBrokerResponse schema

```
{
  "clusterArn": "string",
  "clusterOperationArn": "string"
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

Type: string
Required: False

message

The description of the error.

Type: string
Required: False

RebootBrokerRequest

The request body for the RebootBroker action.

brokerIds

The list of broker IDs to be rebooted. Specify only one broker ID.

Type: Array of type string
Required: True

RebootBrokerResponse

The response body for RebootBroker.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string

Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

Type: string

Required: False

See also

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

RebootBroker

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Scram Secrets

Represents a secret stored in the Amazon Secrets Manager that can be used to authenticate with a cluster using your sign-in credentials.

URI

/v1/clusters/*clusterArn*/scram-secrets

HTTP methods

GET

Operation ID: `ListScramSecrets`

Returns a list of SCRAM secrets associated with the cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using sign-in credentials.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker. When the result of the operation is truncated, the call returns `NextToken` in the response. To get the next batch, provide this token in your next request.
maxResults	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there

Name	Type	Required	Description
			are more results, the response includes a `NextToken` parameter.

Responses

Status code	Response model	Description
200	[ListScramSecretsResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response
500	[Error](#)	There was an unexpected internal server error. Retrying your request might resolve the issue.

Status code	Response model	Description
503	[Error](#)	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PATCH

Operation ID: `BatchDisassociateScramSecret`

Disassociates a list of SCRAM secrets from a cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using sign-in credentials. You can disassociate up to 10 secrets from a cluster at a time.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that

Name	Type	Required	Description
			uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	BatchDisassociateS cramSecretResponse	200 response
400	Error	The request isn't valid because the input is incorrect . Correct your input and then submit it again.
401	Error	The request is not authorize d. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

POST

Operation ID: BatchAssociateScramSecret

Associates a list of SCRAM secrets with a cluster. SCRAM secrets are stored in the Amazon Secrets Manager service, and are used to authenticate clients using sign-in credentials. You can associate up to 10 secrets with a cluster at a time.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[BatchAssociateScra mSecretResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect . Correct your input and then submit it again.
401	[Error](#)	The request is not authorize d. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input.

Status code	Response model	Description
		Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PATCH schema

```
{
  "secretArnList": [
    "string"
  ]
}
```

POST schema

```
{
  "secretArnList": [
    "string"
  ]
}
```

Response bodies

ListScramSecretsResponse schema

```
{
```

```
  "nextToken": "string",
  "secretArnList": [
    "string"
  ]
}
```

BatchDisassociateScramSecretResponse schema

```
{
  "clusterArn": "string",
  "unprocessedScramSecrets": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "secretArn": "string"
    }
  ]
}
```

BatchAssociateScramSecretResponse schema

```
{
  "clusterArn": "string",
  "unprocessedScramSecrets": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "secretArn": "string"
    }
  ]
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

BatchAssociateScramSecretRequest

Request body for BatchAssociateScramSecret.

secretArnList

List of Amazon Secrets Manager secret Amazon Resource Name (ARN)s.

> **Type**: Array of type string
> **Required**: True

BatchAssociateScramSecretResponse

Response body for BatchAssociateScramSecret.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: False

unprocessedScramSecrets

List of errors when associating secrets to cluster.

> **Type**: Array of type UnprocessedScramSecret
> **Required**: False

BatchDisassociateScramSecretRequest

Request body for BatchDisassociateScramSecret.

secretArnList

List of Amazon Secrets Manager secret Amazon Resource Name (ARN)s.

> **Type**: Array of type string
> **Required**: True

BatchDisassociateScramSecretResponse

Response body for BatchDisassociateScramSecret.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

    Type: string
    Required: False

unprocessedScramSecrets

List of errors when disassociating secrets to cluster.

    Type: Array of type UnprocessedScramSecret
    Required: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

    Type: string
    Required: False

message

The description of the error.

    Type: string
    Required: False

ListScramSecretsResponse

Information about scram secrets associated to the cluster.

nextToken

Paginated results marker.

> **Type**: string
> **Required**: False

secretArnList

The list of scram secrets associated with the cluster.

> **Type**: Array of type string
> **Required**: False

UnprocessedScramSecret

Error info for scram secret associate/disassociate failure.

errorCode

Error code for associate/disassociate failure.

> **Type**: string
> **Required**: False

errorMessage

Error message for associate/disassociate failure.

> **Type**: string
> **Required**: False

secretArn

Amazon Secrets Manager secret Amazon Resource Name (ARN).

> **Type**: string
> **Required**: False

See also

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

ListScramSecrets

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

BatchDisassociateScramSecret

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

BatchAssociateScramSecret

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

Tags

Represents the set of tags for an MSK resource. A tag is a key-value pair that you define for the cluster. Using tags is a simple yet powerful way to manage Amazon resources and organize data, including billing data.

URI

/v1/tags/*resourceArn*

HTTP methods

DELETE

Operation ID: UntagResource

Removes the tags associated with the keys that are provided in the query.

Path parameters

Name	Type	Required	Description
resourceArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the resource that's associated with the tags.

Query parameters

Name	Type	Required	Description
`tagKeys`	String	True	Tag keys must be unique for a given cluster. In addition, the following restrictions apply:

- Each tag key must be unique. If you add a tag with a key that's already in use, your new tag overwrites the existing key-value pair.

- You can't start a tag key with `aws:` because this prefix is reserved for use by Amazon. Amazon creates tags that begin with this prefix on your behalf, but you can't edit or delete them.

- Tag keys must be between 1 and 128 Unicode characters in length.

- Tag keys must consist of the following characters: Unicode letters,

Name	Type	Required	Description
			digits, white space, and the following special characters: _ . / = + - @.

Responses

Status code	Response model	Description
204	None	204 response
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

GET

Operation ID: `ListTagsForResource`

Returns a list of the tags associated with the specified resource.

Path parameters

Name	Type	Required	Description
resourceArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the resource that's associated with the tags.

Responses

Status code	Response model	Description
200	[ListTagsForResourceResponse](#)	Success response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input.

Status code	Response model	Description
		Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
resourceArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the resource that's associated with the tags.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

POST

Operation ID: TagResource

Adds tags to the specified MSK resource.

Path parameters

Name	Type	Required	Description
resourceArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the resource that's associated with the tags.

Responses

Status code	Response model	Description
204	None	204 response
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input.

Status code	Response model	Description
		Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

POST schema

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

Response bodies

ListTagsForResourceResponse schema

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

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
```

```
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

ListTagsForResourceResponse

Response of listing tags for a resource.

tags

The key-value pair for the resource tag.

> **Type**: object
> **Required**: True

TagResourceRequest

Tag a resource.

tags

The key-value pair for the resource tag.

Type: object

Required: True

See also

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

UntagResource

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

ListTagsForResource

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

TagResource

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

UpdateStorage

Updates cluster broker volume size (or) sets cluster storage mode to TIERED.

URI

/v1/clusters/*clusterArn*/storage

HTTP methods

OPTIONS

Enable CORS by returning the correct headers.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

PUT

Operation ID: `UpdateStorage`

Updates cluster broker volume size (or) sets cluster storage mode to TIERED.

Path parameters

Name	Type	Required	Description
clusterArn	String	True	The Amazon Resource Name (ARN) that uniquely identifies the cluster.

Responses

Status code	Response model	Description
200	[UpdateStorageResponse](#)	Successful response.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.

Status code	Response model	Description
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

PUT schema

```
{
  "currentVersion": "string",
  "provisionedThroughput": {
    "enabled": boolean,
    "volumeThroughput": integer
  },
  "storageMode": enum,
  "volumeSizeGB": integer
}
```

Response bodies

UpdateStorageResponse schema

```
{
   "clusterArn": "string",
   "clusterOperationArn": "string"
}
```

Error schema

```
{
   "invalidParameter": "string",
   "message": "string"
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

   Type: string
   Required: False

message

The description of the error.

   Type: string
   Required: False

ProvisionedThroughput

Contains information about provisioned throughput for EBS storage volumes attached to kafka broker nodes.

enabled

Provisioned throughput is enabled or not.

> **Type**: boolean
>
> **Required**: False

volumeThroughput

Throughput value of the EBS volumes for the data drive on each kafka broker node in MiB per second.

> **Type**: integer
>
> **Required**: False

StorageMode

Controls storage mode for various supported storage tiers.

> LOCAL
>
> TIERED

UpdateStorageRequest

Request object for UpdateStorageApi.

currentVersion

The version of cluster to update from. A successful operation will then generate a new version.

> **Type**: string
>
> **Required**: True

provisionedThroughput

EBS volume provisioned throughput information.

> **Type**: [ProvisionedThroughput](#)

Required: False

storageMode

Controls storage mode for supported storage tiers.

   Type: StorageMode
   Required: False

volumeSizeGB

size of the EBS volume to update.

   Type: integer
   Required: False

UpdateStorageResponse

Response body for UpdateStorageResponse Api.

clusterArn

The Amazon Resource Name (ARN) of the cluster.

   Type: string
   Required: False

clusterOperationArn

The Amazon Resource Name (ARN) of the cluster operation.

   Type: string
   Required: False

See also

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

UpdateStorage

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

Vpc-connection

URI

`/v1/vpc-connection`

HTTP methods

OPTIONS

Enable CORS by returning correct headers.

Responses

Status code	Response model	Description
200	None	Default response for CORS method.

POST

Operation ID: `CreateVpcConnection`

Create remote VPC connection.

Responses

Status code	Response model	Description
200	CreateVpcConnectio nResponse	HTTP Status Code 200: OK.
400	Error	The request isn't valid because the input is incorrect . Correct your input and then submit it again.
401	Error	The request is not authorize d. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

Schemas

Request bodies

POST schema

```
{
  "authentication": "string",
  "clientSubnets": [
    "string"
  ],
  "securityGroups": [
    "string"
  ],
  "tags": {
  },
  "targetClusterArn": "string",
  "vpcId": "string"
}
```

Response bodies

CreateVpcConnectionResponse schema

```
{
  "authentication": "string",
  "clientSubnets": [
    "string"
  ],
  "creationTime": "string",
  "securityGroups": [
    "string"
  ],
  "state": enum,
  "tags": {
  },
  "vpcConnectionArn": "string",
  "vpcId": "string"
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
```

```
}
```

Properties

CreateVpcConnectionRequest

Creates a remote VPC connection for account client.

authentication

The authentication type for the client VPC connection. Specify one of these auth type strings: SASL_IAM, SASL_SCRAM, or TLS.

>   **Type**: string
>   **Required**: True
>   **MinLength**: 3
>   **MaxLength**: 10

clientSubnets

The list of subnets in the client VPC to connect to.

>   **Type**: Array of type string
>   **Required**: True

securityGroups

The security groups to attach to the ENIs for the broker nodes.

>   **Type**: Array of type string
>   **Required**: False

tags

Create tags when creating the VPC connection.

>   **Type**: object
>   **Required**: False

targetClusterArn

The Amazon Resource Name (ARN) of the cluster.

> **Type**: string
> **Required**: True

vpcId

The VPC id of the remote client.

> **Type**: string
> **Required**: True

CreateVpcConnectionResponse

Returns information about the created VPC connection.

authentication

The type of authentication to be uses by remote clients.

> **Type**: string
> **Required**: False
> **MinLength**: 3
> **MaxLength**: 10

clientSubnets

The list of subnets in the client VPC to connect to.

> **Type**: Array of type string
> **Required**: False

creationTime

The time when the VPC connection was created.

> **Type**: string
> **Required**: False

securityGroups

The security groups to attach to the ENIs for the broker nodes.

   Type: Array of type string

   Required: False

state

State of the VPC connection.

   Type: [VpcConnectionState](#)

   Required: False

tags

Tags attached to the VPC connection.

   Type: object

   Required: False

vpcConnectionArn

The Amazon Resource Name (ARN) of the remote VPC connection.

   Type: string

   Required: False

vpcId

The VPC id of the remote client.

   Type: string

   Required: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

VpcConnectionState

State of the vpc connection

```
CREATING
AVAILABLE
INACTIVE
UPDATING
DEACTIVATING
DELETING
FAILED
REJECTED
REJECTING
```

See also

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

CreateVpcConnection

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

Vpc-connection arn

URI

/v1/vpc-connection/*arn*

HTTP methods

DELETE

Operation ID: DeleteVpcConnection

Delete remote VPC connection.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.

Responses

Status code	Response model	Description
200	DeleteVpcConnectionResponse	HTTP Status Code 200: OK.
400	Error	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	Error	The request is not authorized. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

GET

Operation ID: DescribeVpcConnection

Describes Remote VPC Connection.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions.

Responses

Status code	Response model	Description
200	[DescribeVpcConnectionResponse](#)	HTTP Status Code 200: OK.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.
401	[Error](#)	The request is not authorized. The provided credentials couldn't be validated.
403	[Error](#)	Access forbidden. Check your credentials and then retry your request.
404	[Error](#)	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	[Error](#)	429 response

Status code	Response model	Description
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning correct headers.

Path parameters

Name	Type	Required	Description
arn	String	True	The Amazon Resource Name (ARN) that uniquely identifies an MSK configuration and all of its revisions .

Responses

Status code	Response model	Description
200	None	Default response for CORS method.

Schemas

Response bodies

DeleteVpcConnectionResponse schema

```
{
```

```
    "state": enum,
    "vpcConnectionArn": "string"
}
```

DescribeVpcConnectionResponse schema

```
{
    "authentication": "string",
    "creationTime": "string",
    "securityGroups": [
        "string"
    ],
    "state": enum,
    "subnets": [
        "string"
    ],
    "tags": {
    },
    "targetClusterArn": "string",
    "vpcConnectionArn": "string",
    "vpcId": "string"
}
```

Error schema

```
{
    "invalidParameter": "string",
    "message": "string"
}
```

Properties

DeleteVpcConnectionResponse

Returns information about the deleted VPC connection.

state

State of the Remote VPC Connection.

   Type: VpcConnectionState

Required: False

vpcConnectionArn

The Amazon Resource Name (ARN) of the Remote VPC.

    Type: string
    Required: False

DescribeVpcConnectionResponse

Response body for DescribeVpcConnection.

authentication

The type of private link authentication.

    Type: string
    Required: False

creationTime

The time when the configuration was created.

    Type: string
    Required: True

securityGroups

The list of security groups in Remote VPC Connection.

    Type: Array of type string
    Required: False

state

State of the Remote VPC Connection.

    Type: VpcConnectionState
    Required: False

subnets

The list of subnets in Remote VPC Connection.

> **Type**: Array of type string
> **Required**: False

tags

Tags attached to the vpc connection.

> **Type**: object
> **Required**: False

targetClusterArn

The Amazon Resource Name (ARN) of the target cluster.

> **Type**: string
> **Required**: True

vpcConnectionArn

The Amazon Resource Name (ARN) of the Remote VPC.

> **Type**: string
> **Required**: True

vpcId

The description of the vpcId.

> **Type**: string
> **Required**: False

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

> **Type**: string
> **Required**: False

message

The description of the error.

> **Type**: string
> **Required**: False

VpcConnectionState

State of the vpc connection

```
CREATING
AVAILABLE
INACTIVE
UPDATING
DEACTIVATING
DELETING
FAILED
REJECTED
REJECTING
```

See also

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

DeleteVpcConnection

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

DescribeVpcConnection

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

Vpc-connections

URI

`/v1/vpc-connections`

HTTP methods

GET

Operation ID: `ListVpcConnections`

Lists all VPC connections.

Query parameters

Name	Type	Required	Description
nextToken	String	False	The paginated results marker. When the result of the operation is truncated, the call returns NextToken in the response. To get the next batch, provide this token in your next request.
maxResults	String	False	The maximum number of results to return in the response (default maximum 100 results per API call). If there are more results, the response includes a NextToken parameter.

Responses

Status code	Response model	Description
200	[ListVpcConnections Response](#)	HTTP Status Code 200: OK.
400	[Error](#)	The request isn't valid because the input is incorrect. Correct your input and then submit it again.

Status code	Response model	Description
401	Error	The request is not authorize d. The provided credentials couldn't be validated.
403	Error	Access forbidden. Check your credentials and then retry your request.
404	Error	The resource could not be found due to incorrect input. Correct the input, then retry the request.
429	Error	429 response
500	Error	There was an unexpected internal server error. Retrying your request might resolve the issue.
503	Error	503 response

OPTIONS

Enable CORS by returning correct headers.

Responses

Status code	Response model	Description
200	None	Default response for CORS method.

Schemas

Response bodies

ListVpcConnectionsResponse schema

```
{
  "nextToken": "string",
  "vpcConnections": [
    {
      "authentication": "string",
      "creationTime": "string",
      "state": enum,
      "targetClusterArn": "string",
      "vpcConnectionArn": "string",
      "vpcId": "string"
    }
  ]
}
```

Error schema

```
{
  "invalidParameter": "string",
  "message": "string"
}
```

Properties

Error

Returns information about an error.

invalidParameter

The parameter that caused the error.

   Type: string
   Required: False

message

The description of the error.

Type: string
Required: False

ListVpcConnectionsResponse

The response contains an array of vpcConnections and a next token if the response is truncated.

nextToken

If the response of ListVpcConnections is truncated, it returns a NextToken in the response. This NextToken should be sent in the subsequent request to ListVpcConnections.

Type: string
Required: False

vpcConnections

An array of VPC Connection.

Type: Array of type VpcConnection
Required: False

VpcConnection

Vpc Connection description

authentication

The type of private link authentication.

Type: string
Required: False

creationTime

The time which the VPC Connnection is created.

Type: string
Required: False

state

State of the Remote VPC Connection.

> **Type**: VpcConnectionState
> **Required**: False

targetClusterArn

The Amazon Resource Name (ARN) of the target cluster.

> **Type**: string
> **Required**: True

vpcConnectionArn

The Amazon Resource Name (ARN) of the Remote Vpc.

> **Type**: string
> **Required**: True

vpcId

The description of the vpcId.

> **Type**: string
> **Required**: False

VpcConnectionState

State of the vpc connection

```
CREATING
AVAILABLE
INACTIVE
UPDATING
DEACTIVATING
DELETING
```

```
FAILED
REJECTED
REJECTING
```

See also

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

ListVpcConnections

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Document History for Amazon Managed Streaming for Apache Kafka API Reference

The following table describes the documentation for this release of the *Amazon Managed Streaming for Apache Kafka API Reference*.

- **API version:** 2019-05-30
- **Latest documentation update:** October 26, 2022.

Change	Description	Date
Amazon MSK GA release	This is the general-availability release of the Amazon MSK API Reference to support Amazon MSK Replicator.	October 17, 2023
Amazon MSK GA release	This is the general-availability release of the Amazon MSK API Reference to support tiered storage.	October 26, 2022
Amazon MSK GA release	This is the general-availability release of the Amazon MSK API Reference.	May 30, 2019
Amazon MSK preview release	This is the preview release of the Amazon MSK API Reference.	November 29, 2018

AWS Glossary

For the latest AWS terminology, see the AWS glossary in the *AWS Glossary Reference*.