Amazon MemoryDB

API Reference

API Version 2021-01-01

Amazon MemoryDB: API Reference

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Welcome

MemoryDB for Redis is a fully managed, Redis-compatible, in-memory database that delivers ultra-fast performance and Multi-AZ durability for modern applications built using microservices architectures. MemoryDB stores the entire database in-memory, enabling low latency and high throughput data access. It is compatible with Redis, a popular open source data store, enabling you to leverage Redis' flexible and friendly data structures, APIs, and commands.

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Actions

The following actions are supported:

BatchUpdateCluster

Apply the service update to a list of clusters supplied. For more information on service updates and applying them, see Applying the service updates.

Request Syntax

```
{
   "ClusterNames": [ "string" ],
   "ServiceUpdate": {
      "ServiceUpdateNameToApply": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ClusterNames (p. 3)

The cluster names to apply the updates.

Type: Array of strings

Array Members: Maximum number of 20 items.

Required: Yes

ServiceUpdate (p. 3)

The unique ID of the service update

Type: ServiceUpdateRequest (p. 141) object

Required: No

Response Syntax

```
{
   "ProcessedClusters": [
      {
         "ACLName": "string",
         "ARN": "string",
         "AutoMinorVersionUpgrade": boolean,
         "AvailabilityMode": "string",
         "ClusterEndpoint": {
            "Address": "string",
            "Port": number
         },
         "Description": "string",
         "EnginePatchVersion": "string",
         "EngineVersion": "string",
         "KmsKeyId": "string",
         "MaintenanceWindow": "string",
         "Name": "string",
         "NodeType": "string",
```

```
         "NumberOfShards": number,
         "ParameterGroupName": "string",
         "ParameterGroupStatus": "string",
         "PendingUpdates": {
            "ACLs": {
               "ACLToApply": "string"
            },
            "Resharding": {
               "SlotMigration": {
                  "ProgressPercentage": number
               }
            },
            "ServiceUpdates": [
               {
                  "ServiceUpdateName": "string",
                  "Status": "string"
               }
            ]
         },
         "SecurityGroups": [
            {
               "SecurityGroupId": "string",
               "Status": "string"
            }
         ],
         "Shards": [
            {
               "Name": "string",
               "Nodes": [
                  {
                     "AvailabilityZone": "string",
                     "CreateTime": number,
                     "Endpoint": {
                        "Address": "string",
                        "Port": number
                     },
                     "Name": "string",
                     "Status": "string"
                  }
               ],
               "NumberOfNodes": number,
               "Slots": "string",
               "Status": "string"
            }
         ],
         "SnapshotRetentionLimit": number,
         "SnapshotWindow": "string",
         "SnsTopicArn": "string",
         "SnsTopicStatus": "string",
         "Status": "string",
         "SubnetGroupName": "string",
         "TLSEnabled": boolean
      }
   ],
   "UnprocessedClusters": [
      {
         "ClusterName": "string",
         "ErrorMessage": "string",
         "ErrorType": "string"
      }
   ]
}
```

Response Elements

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

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

ProcessedClusters (p. 3)

The list of clusters that have been updated.

Type: Array of Cluster (p. 119) objects

UnprocessedClusters (p. 3)

The list of clusters where updates have not been applied.

Type: Array of UnprocessedCluster (p. 153) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterValueException

HTTP Status Code: 400

ServiceUpdateNotFoundFault

HTTP Status Code: 400

See Also

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

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

CopySnapshot

Makes a copy of an existing snapshot.

Request Syntax

```
{
   "KmsKeyId": "string",
   "SourceSnapshotName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "TargetBucket": "string",
   "TargetSnapshotName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

KmsKeyId (p. 6)

The ID of the KMS key used to encrypt the target snapshot.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

SourceSnapshotName (p. 6)

The name of an existing snapshot from which to make a copy.

Type: String

Required: Yes

Tags (p. 6)

A list of tags to be added to this resource. A tag is a key-value pair. A tag key must be accompanied by a tag value, although null is accepted.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Required: No

TargetBucket (p. 6)

The Amazon S3 bucket to which the snapshot is exported. This parameter is used only when exporting a snapshot for external access. When using this parameter to export a snapshot, be sure

MemoryDB has the needed permissions to this S3 bucket. For more information, see Step 2: Grant MemoryDB Access to Your Amazon S3 Bucket.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[A-Za-z0-9._-]+$`

Required: No

TargetSnapshotName (p. 6)

A name for the snapshot copy. MemoryDB does not permit overwriting a snapshot, therefore this name must be unique within its context - MemoryDB or an Amazon S3 bucket if exporting.

Type: String

Required: Yes

Response Syntax

```
{
   "Snapshot": {
      "ARN": "string",
      "ClusterConfiguration": {
         "Description": "string",
         "EngineVersion": "string",
         "MaintenanceWindow": "string",
         "Name": "string",
         "NodeType": "string",
         "NumShards": number,
         "ParameterGroupName": "string",
         "Port": number,
         "Shards": [
            {
               "Configuration": {
                  "ReplicaCount": number,
                  "Slots": "string"
               },
               "Name": "string",
               "Size": "string",
               "SnapshotCreationTime": number
            }
         ],
         "SnapshotRetentionLimit": number,
         "SnapshotWindow": "string",
         "SubnetGroupName": "string",
         "TopicArn": "string",
         "VpcId": "string"
      },
      "KmsKeyId": "string",
      "Name": "string",
      "Source": "string",
      "Status": "string"
   }
}
```

Response Elements

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

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

Snapshot (p. 7)

Represents a copy of an entire cluster as of the time when the snapshot was taken.

Type: Snapshot (p. 147) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

InvalidSnapshotStateFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SnapshotAlreadyExistsFault

HTTP Status Code: 400

SnapshotNotFoundFault

HTTP Status Code: 400

SnapshotQuotaExceededFault

HTTP Status Code: 400

TagQuotaPerResourceExceeded

HTTP Status Code: 400

See Also

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

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

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

CreateACL

Creates an Access Control List. For more information, see Authenticating users with Access Contol Lists (ACLs).

Request Syntax

```
{
   "ACLName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "UserNames": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ACLName (p. 10)

The name of the Access Control List.

Type: String

Required: Yes

Tags (p. 10)

A list of tags to be added to this resource. A tag is a key-value pair. A tag key must be accompanied by a tag value, although null is accepted.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Required: No

UserNames (p. 10)

The list of users that belong to the Access Control List.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

Response Syntax

```
{
   "ACL": {
      "ARN": "string",
      "Clusters": [ "string" ],
      "MinimumEngineVersion": "string",
      "Name": "string",
      "PendingChanges": {
         "UserNamesToAdd": [ "string" ],
         "UserNamesToRemove": [ "string" ]
      },
      "Status": "string",
      "UserNames": [ "string" ]
   }
}
```

Response Elements

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

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

ACL (p. 11)

The newly-created Access Control List.

Type: ACL (p. 112) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLAlreadyExistsFault

HTTP Status Code: 400

ACLQuotaExceededFault

HTTP Status Code: 400

DefaultUserRequired

HTTP Status Code: 400

DuplicateUserNameFault

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

TagQuotaPerResourceExceeded

HTTP Status Code: 400

UserNotFoundFault

HTTP Status Code: 400

See Also

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

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

CreateCluster

Creates a cluster. All nodes in the cluster run the same protocol-compliant engine software.

Request Syntax

```
{
   "ACLName": "string",
   "AutoMinorVersionUpgrade": boolean,
   "ClusterName": "string",
   "Description": "string",
   "EngineVersion": "string",
   "KmsKeyId": "string",
   "MaintenanceWindow": "string",
   "NodeType": "string",
   "NumReplicasPerShard": number,
   "NumShards": number,
   "ParameterGroupName": "string",
   "Port": number,
   "SecurityGroupIds": [ "string" ],
   "SnapshotArns": [ "string" ],
   "SnapshotName": "string",
   "SnapshotRetentionLimit": number,
   "SnapshotWindow": "string",
   "SnsTopicArn": "string",
   "SubnetGroupName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "TLSEnabled": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ACLName (p. 13)

The name of the Access Control List to associate with the cluster.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: Yes

AutoMinorVersionUpgrade (p. 13)

When set to true, the cluster will automatically receive minor engine version upgrades after launch.

Type: Boolean

Required: No

ClusterName (p. 13)

The name of the cluster. This value must be unique as it also serves as the cluster identifier.

Type: String

Required: Yes

Description (p. 13)

An optional description of the cluster.

Type: String

Required: No

EngineVersion (p. 13)

The version number of the Redis engine to be used for the cluster.

Type: String

Required: No

KmsKeyId (p. 13)

The ID of the KMS key used to encrypt the cluster.

Type: String

Required: No

MaintenanceWindow (p. 13)

Specifies the weekly time range during which maintenance on the cluster is performed. It is specified as a range in the format `ddd:hh24:mi-ddd:hh24:mi` (24H Clock UTC). The minimum maintenance window is a 60 minute period.

Type: String

Required: No

NodeType (p. 13)

The compute and memory capacity of the nodes in the cluster.

Type: String

Required: Yes

NumReplicasPerShard (p. 13)

The number of replicas to apply to each shard. The default value is 1. The maximum is 5.

Type: Integer

Required: No

NumShards (p. 13)

The number of shards the cluster will contain. The default value is 1.

Type: Integer

Required: No

ParameterGroupName (p. 13)

The name of the parameter group associated with the cluster.

Type: String

Required: No

Port (p. 13)

The port number on which each of the nodes accepts connections.

Type: Integer

Required: No

SecurityGroupIds (p. 13)

A list of security group names to associate with this cluster.

Type: Array of strings

Required: No

SnapshotArns (p. 13)

A list of Amazon Resource Names (ARN) that uniquely identify the RDB snapshot files stored in Amazon S3. The snapshot files are used to populate the new cluster. The Amazon S3 object name in the ARN cannot contain any commas.

Type: Array of strings

Required: No

SnapshotName (p. 13)

The name of a snapshot from which to restore data into the new cluster. The snapshot status changes to restoring while the new cluster is being created.

Type: String

Required: No

SnapshotRetentionLimit (p. 13)

The number of days for which MemoryDB retains automatic snapshots before deleting them. For example, if you set SnapshotRetentionLimit to 5, a snapshot that was taken today is retained for 5 days before being deleted.

Type: Integer

Required: No

SnapshotWindow (p. 13)

The daily time range (in UTC) during which MemoryDB begins taking a daily snapshot of your shard.

Example: 05:00-09:00

If you do not specify this parameter, MemoryDB automatically chooses an appropriate time range.

Type: String

Required: No

SnsTopicArn (p. 13)

The Amazon Resource Name (ARN) of the Amazon Simple Notification Service (SNS) topic to which notifications are sent.

Type: String

Required: No

SubnetGroupName (p. 13)

The name of the subnet group to be used for the cluster.

Type: String

Required: No

Tags (p. 13)

A list of tags to be added to this resource. Tags are comma-separated key,value pairs (e.g. Key=myKey, Value=myKeyValue. You can include multiple tags as shown following: Key=myKey, Value=myKeyValue Key=mySecondKey, Value=mySecondKeyValue.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Required: No

TLSEnabled (p. 13)

A flag to enable in-transit encryption on the cluster.

Type: Boolean

Required: No

Response Syntax

```
{
   "Cluster": {
      "ACLName": "string",
      "ARN": "string",
      "AutoMinorVersionUpgrade": boolean,
      "AvailabilityMode": "string",
      "ClusterEndpoint": {
         "Address": "string",
         "Port": number
      },
      "Description": "string",
      "EnginePatchVersion": "string",
      "EngineVersion": "string",
      "KmsKeyId": "string",
      "MaintenanceWindow": "string",
      "Name": "string",
      "NodeType": "string",
      "NumberOfShards": number,
      "ParameterGroupName": "string",
      "ParameterGroupStatus": "string",
      "PendingUpdates": {
         "ACLs": {
            "ACLToApply": "string"
         },
         "Resharding": {
            "SlotMigration": {
               "ProgressPercentage": number
            }
         },
         "ServiceUpdates": [
            {
```

```
                "ServiceUpdateName": "string",
                "Status": "string"
            }
        ]
    },
    "SecurityGroups": [
        {
            "SecurityGroupId": "string",
            "Status": "string"
        }
    ],
    "Shards": [
        {
            "Name": "string",
            "Nodes": [
                {
                    "AvailabilityZone": "string",
                    "CreateTime": number,
                    "Endpoint": {
                        "Address": "string",
                        "Port": number
                    },
                    "Name": "string",
                    "Status": "string"
                }
            ],
            "NumberOfNodes": number,
            "Slots": "string",
            "Status": "string"
        }
    ],
    "SnapshotRetentionLimit": number,
    "SnapshotWindow": "string",
    "SnsTopicArn": "string",
    "SnsTopicStatus": "string",
    "Status": "string",
    "SubnetGroupName": "string",
    "TLSEnabled": boolean
  }
}
```

Response Elements

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

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

Cluster (p. 16)

The newly-created cluster.

Type: Cluster (p. 119) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLNotFoundFault

HTTP Status Code: 400

ClusterAlreadyExistsFault

HTTP Status Code: 400

ClusterQuotaForCustomerExceededFault

HTTP Status Code: 400

InsufficientClusterCapacityFault

HTTP Status Code: 400

InvalidACLStateFault

HTTP Status Code: 400

InvalidCredentialsException

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

InvalidVPCNetworkStateFault

HTTP Status Code: 400

NodeQuotaForClusterExceededFault

HTTP Status Code: 400

NodeQuotaForCustomerExceededFault

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

ShardsPerClusterQuotaExceededFault

HTTP Status Code: 400

SubnetGroupNotFoundFault

HTTP Status Code: 400

TagQuotaPerResourceExceeded

HTTP Status Code: 400

See Also

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

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

CreateParameterGroup

Creates a new MemoryDB parameter group. A parameter group is a collection of parameters and their values that are applied to all of the nodes in any cluster. For more information, see Configuring engine parameters using parameter groups.

Request Syntax

```
{
   "Description": "string",
   "Family": "string",
   "ParameterGroupName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

Description (p. 20)

An optional description of the parameter group.

Type: String

Required: No

Family (p. 20)

The name of the parameter group family that the parameter group can be used with.

Type: String

Required: Yes

ParameterGroupName (p. 20)

The name of the parameter group.

Type: String

Required: Yes

Tags (p. 20)

A list of tags to be added to this resource. A tag is a key-value pair. A tag key must be accompanied by a tag value, although null is accepted.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "ParameterGroup": {
      "ARN": "string",
      "Description": "string",
      "Family": "string",
      "Name": "string"
   }
}
```

Response Elements

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

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

ParameterGroup (p. 21)

The newly-created parameter group.

Type: ParameterGroup (p. 133) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterGroupStateFault

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ParameterGroupAlreadyExistsFault

HTTP Status Code: 400

ParameterGroupQuotaExceededFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

TagQuotaPerResourceExceeded

HTTP Status Code: 400

See Also

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

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

CreateSnapshot

Creates a copy of an entire cluster at a specific moment in time.

Request Syntax

```
{
   "ClusterName": "string",
   "KmsKeyId": "string",
   "SnapshotName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ClusterName (p. 23)

The snapshot is created from this cluster.

Type: String

Required: Yes

KmsKeyId (p. 23)

The ID of the KMS key used to encrypt the snapshot.

Type: String

Required: No

SnapshotName (p. 23)

A name for the snapshot being created.

Type: String

Required: Yes

Tags (p. 23)

A list of tags to be added to this resource. A tag is a key-value pair. A tag key must be accompanied by a tag value, although null is accepted.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "Snapshot": {
      "ARN": "string",
      "ClusterConfiguration": {
         "Description": "string",
         "EngineVersion": "string",
         "MaintenanceWindow": "string",
         "Name": "string",
         "NodeType": "string",
         "NumShards": number,
         "ParameterGroupName": "string",
         "Port": number,
         "Shards": [
            {
               "Configuration": {
                  "ReplicaCount": number,
                  "Slots": "string"
               },
               "Name": "string",
               "Size": "string",
               "SnapshotCreationTime": number
            }
         ],
         "SnapshotRetentionLimit": number,
         "SnapshotWindow": "string",
         "SubnetGroupName": "string",
         "TopicArn": "string",
         "VpcId": "string"
      },
      "KmsKeyId": "string",
      "Name": "string",
      "Source": "string",
      "Status": "string"
   }
}
```

Response Elements

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

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

Snapshot (p. 24)

The newly-created snapshot.

Type: Snapshot (p. 147) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ClusterNotFoundFault

HTTP Status Code: 400

InvalidClusterStateFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SnapshotAlreadyExistsFault

HTTP Status Code: 400

SnapshotQuotaExceededFault

HTTP Status Code: 400

TagQuotaPerResourceExceeded

HTTP Status Code: 400

See Also

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

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

CreateSubnetGroup

Creates a subnet group. A subnet group is a collection of subnets (typically private) that you can designate for your clusters running in an Amazon Virtual Private Cloud (VPC) environment. When you create a cluster in an Amazon VPC, you must specify a subnet group. MemoryDB uses that subnet group to choose a subnet and IP addresses within that subnet to associate with your nodes. For more information, see Subnets and subnet groups.

Request Syntax

```
{
   "Description": "string",
   "SubnetGroupName": "string",
   "SubnetIds": [ "string" ],
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

Description (p. 26)

A description for the subnet group.

Type: String

Required: No

SubnetGroupName (p. 26)

The name of the subnet group.

Type: String

Required: Yes

SubnetIds (p. 26)

A list of VPC subnet IDs for the subnet group.

Type: Array of strings

Required: Yes

Tags (p. 26)

A list of tags to be added to this resource. A tag is a key-value pair. A tag key must be accompanied by a tag value, although null is accepted.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "SubnetGroup": {
      "ARN": "string",
      "Description": "string",
      "Name": "string",
      "Subnets": [
         {
            "AvailabilityZone": {
               "Name": "string"
            },
            "Identifier": "string"
         }
      ],
      "VpcId": "string"
   }
}
```

Response Elements

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

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

SubnetGroup (p. 27)

The newly-created subnet group

Type: SubnetGroup (p. 150) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidSubnet

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SubnetGroupAlreadyExistsFault

HTTP Status Code: 400

SubnetGroupQuotaExceededFault

HTTP Status Code: 400

SubnetNotAllowedFault

HTTP Status Code: 400

SubnetQuotaExceededFault

HTTP Status Code: 400

TagQuotaPerResourceExceeded

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
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- AWS SDK for Python
- AWS SDK for Ruby V3

CreateUser

Creates a MemoryDB user. For more information, see Authenticating users with Access Contol Lists (ACLs).

Request Syntax

```
{
   "AccessString": "string",
   "AuthenticationMode": {
      "Passwords": [ "string" ],
      "Type": "string"
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "UserName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

AccessString (p. 29)

Access permissions string used for this user.

Type: String

Pattern: `.*\S.*`

Required: Yes

AuthenticationMode (p. 29)

Denotes the user's authentication properties, such as whether it requires a password to authenticate.

Type: AuthenticationMode (p. 117) object

Required: Yes

Tags (p. 29)

A list of tags to be added to this resource. A tag is a key-value pair. A tag key must be accompanied by a tag value, although null is accepted.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Required: No

UserName (p. 29)

The name of the user. This value must be unique as it also serves as the user identifier.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: Yes

Response Syntax

```
{
   "User": {
      "AccessString": "string",
      "ACLNames": [ "string" ],
      "ARN": "string",
      "Authentication": {
         "PasswordCount": number,
         "Type": "string"
      },
      "MinimumEngineVersion": "string",
      "Name": "string",
      "Status": "string"
   }
}
```

Response Elements

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

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

User (p. 30)

The newly-created user.

Type: User (p. 154) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

DuplicateUserNameFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

TagQuotaPerResourceExceeded

HTTP Status Code: 400

UserAlreadyExistsFault

HTTP Status Code: 400

UserQuotaExceededFault

HTTP Status Code: 400

See Also

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

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

DeleteACL

Deletes an Access Control List. The ACL must first be disassociated from the cluster before it can be deleted. For more information, see Authenticating users with Access Contol Lists (ACLs).

Request Syntax

```
{
   "ACLName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ACLName (p. 32)

The name of the Access Control List to delete

Type: String

Required: Yes

Response Syntax

```
{
   "ACL": {
      "ARN": "string",
      "Clusters": [ "string" ],
      "MinimumEngineVersion": "string",
      "Name": "string",
      "PendingChanges": {
         "UserNamesToAdd": [ "string" ],
         "UserNamesToRemove": [ "string" ]
      },
      "Status": "string",
      "UserNames": [ "string" ]
   }
}
```

Response Elements

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

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

ACL (p. 32)

The Access Control List object that has been deleted.

Type: ACL (p. 112) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLNotFoundFault

HTTP Status Code: 400

InvalidACLStateFault

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

See Also

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

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

DeleteCluster

Deletes a cluster. It also deletes all associated nodes and node endpoints

Request Syntax

```
{
   "ClusterName": "string",
   "FinalSnapshotName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ClusterName (p. 34)

The name of the cluster to be deleted

Type: String

Required: Yes

FinalSnapshotName (p. 34)

The user-supplied name of a final cluster snapshot. This is the unique name that identifies the snapshot. MemoryDB creates the snapshot, and then deletes the cluster immediately afterward.

Type: String

Required: No

Response Syntax

```
{
   "Cluster": {
      "ACLName": "string",
      "ARN": "string",
      "AutoMinorVersionUpgrade": boolean,
      "AvailabilityMode": "string",
      "ClusterEndpoint": {
         "Address": "string",
         "Port": number
      },
      "Description": "string",
      "EnginePatchVersion": "string",
      "EngineVersion": "string",
      "KmsKeyId": "string",
      "MaintenanceWindow": "string",
      "Name": "string",
      "NodeType": "string",
      "NumberOfShards": number,
      "ParameterGroupName": "string",
```

```
      "ParameterGroupStatus": "string",
      "PendingUpdates": {
         "ACLs": {
            "ACLToApply": "string"
         },
         "Resharding": {
            "SlotMigration": {
               "ProgressPercentage": number
            }
         },
         "ServiceUpdates": [
            {
               "ServiceUpdateName": "string",
               "Status": "string"
            }
         ]
      },
      "SecurityGroups": [
         {
            "SecurityGroupId": "string",
            "Status": "string"
         }
      ],
      "Shards": [
         {
            "Name": "string",
            "Nodes": [
               {
                  "AvailabilityZone": "string",
                  "CreateTime": number,
                  "Endpoint": {
                     "Address": "string",
                     "Port": number
                  },
                  "Name": "string",
                  "Status": "string"
               }
            ],
            "NumberOfNodes": number,
            "Slots": "string",
            "Status": "string"
         }
      ],
      "SnapshotRetentionLimit": number,
      "SnapshotWindow": "string",
      "SnsTopicArn": "string",
      "SnsTopicStatus": "string",
      "Status": "string",
      "SubnetGroupName": "string",
      "TLSEnabled": boolean
   }
}
```

Response Elements

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

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

Cluster (p. 34)

The cluster object that has been deleted

Type: Cluster (p. 119) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ClusterNotFoundFault

HTTP Status Code: 400

InvalidClusterStateFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SnapshotAlreadyExistsFault

HTTP Status Code: 400

See Also

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

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

DeleteParameterGroup

Deletes the specified parameter group. You cannot delete a parameter group if it is associated with any clusters. You cannot delete the default parameter groups in your account.

Request Syntax

```
{
   "ParameterGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ParameterGroupName (p. 37)

The name of the parameter group to delete.

Type: String

Required: Yes

Response Syntax

```
{
   "ParameterGroup": {
      "ARN": "string",
      "Description": "string",
      "Family": "string",
      "Name": "string"
   }
}
```

Response Elements

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

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

ParameterGroup (p. 37)

The parameter group that has been deleted.

Type: ParameterGroup (p. 133) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterGroupStateFault

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

DeleteSnapshot

Deletes an existing snapshot. When you receive a successful response from this operation, MemoryDB immediately begins deleting the snapshot; you cannot cancel or revert this operation.

Request Syntax

```
{
   "SnapshotName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

SnapshotName (p. 39)

The name of the snapshot to delete

Type: String

Required: Yes

Response Syntax

```
{
   "Snapshot": {
      "ARN": "string",
      "ClusterConfiguration": {
         "Description": "string",
         "EngineVersion": "string",
         "MaintenanceWindow": "string",
         "Name": "string",
         "NodeType": "string",
         "NumShards": number,
         "ParameterGroupName": "string",
         "Port": number,
         "Shards": [
            {
               "Configuration": {
                  "ReplicaCount": number,
                  "Slots": "string"
               },
               "Name": "string",
               "Size": "string",
               "SnapshotCreationTime": number
            }
         ],
         "SnapshotRetentionLimit": number,
         "SnapshotWindow": "string",
         "SubnetGroupName": "string",
         "TopicArn": "string",
         "VpcId": "string"
      },
```

```
        "KmsKeyId": "string",
        "Name": "string",
        "Source": "string",
        "Status": "string"
    }
}
```

Response Elements

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

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

Snapshot (p. 39)

The snapshot object that has been deleted.

Type: Snapshot (p. 147) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

InvalidSnapshotStateFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SnapshotNotFoundFault

HTTP Status Code: 400

See Also

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

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

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

DeleteSubnetGroup

Deletes a subnet group. You cannot delete a default subnet group or one that is associated with any clusters.

Request Syntax

```
{
   "SubnetGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

SubnetGroupName (p. 42)

The name of the subnet group to delete

Type: String

Required: Yes

Response Syntax

```
{
   "SubnetGroup": {
      "ARN": "string",
      "Description": "string",
      "Name": "string",
      "Subnets": [
         {
            "AvailabilityZone": {
               "Name": "string"
            },
            "Identifier": "string"
         }
      ],
      "VpcId": "string"
   }
}
```

Response Elements

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

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

SubnetGroup (p. 42)

The subnet group object that has been deleted.

Type: SubnetGroup (p. 150) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SubnetGroupInUseFault

HTTP Status Code: 400

SubnetGroupNotFoundFault

HTTP Status Code: 400

See Also

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

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

DeleteUser

Deletes a user. The user will be removed from all ACLs and in turn removed from all clusters.

Request Syntax

```
{
   "UserName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

UserName (p. 44)

The name of the user to delete

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: Yes

Response Syntax

```
{
   "User": {
      "AccessString": "string",
      "ACLNames": [ "string" ],
      "ARN": "string",
      "Authentication": {
         "PasswordCount": number,
         "Type": "string"
      },
      "MinimumEngineVersion": "string",
      "Name": "string",
      "Status": "string"
   }
}
```

Response Elements

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

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

User (p. 44)

The user object that has been deleted.

Type: User (p. 154) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterValueException

HTTP Status Code: 400

InvalidUserStateFault

HTTP Status Code: 400

UserNotFoundFault

HTTP Status Code: 400

See Also

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

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

DescribeACLs

Returns a list of ACLs

Request Syntax

```
{
   "ACLName": "string",
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ACLName (p. 46)

The name of the ACL

Type: String

Required: No

MaxResults (p. 46)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 46)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

Response Syntax

```
{
   "ACLs": [
      {
         "ARN": "string",
         "Clusters": [ "string" ],
         "MinimumEngineVersion": "string",
         "Name": "string",
         "PendingChanges": {
```

```
            "UserNamesToAdd": [ "string" ],
            "UserNamesToRemove": [ "string" ]
         },
         "Status": "string",
         "UserNames": [ "string" ]
      }
   ],
   "NextToken": "string"
}
```

Response Elements

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

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

ACLs (p. 46)

The list of ACLs

Type: Array of ACL (p. 112) objects

NextToken (p. 46)

If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLNotFoundFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

See Also

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

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

- AWS SDK for Ruby V3

DescribeClusters

Returns information about all provisioned clusters if no cluster identifier is specified, or about a specific cluster if a cluster name is supplied.

Request Syntax

```
{
   "ClusterName": "string",
   "MaxResults": number,
   "NextToken": "string",
   "ShowShardDetails": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ClusterName (p. 49)

The name of the cluster

Type: String

Required: No

MaxResults (p. 49)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 49)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

ShowShardDetails (p. 49)

An optional flag that can be included in the request to retrieve information about the individual shard(s).

Type: Boolean

Required: No

Response Syntax

```
{
   "Clusters": [
      {
         "ACLName": "string",
         "ARN": "string",
         "AutoMinorVersionUpgrade": boolean,
         "AvailabilityMode": "string",
         "ClusterEndpoint": {
            "Address": "string",
            "Port": number
         },
         "Description": "string",
         "EnginePatchVersion": "string",
         "EngineVersion": "string",
         "KmsKeyId": "string",
         "MaintenanceWindow": "string",
         "Name": "string",
         "NodeType": "string",
         "NumberOfShards": number,
         "ParameterGroupName": "string",
         "ParameterGroupStatus": "string",
         "PendingUpdates": {
            "ACLs": {
               "ACLToApply": "string"
            },
            "Resharding": {
               "SlotMigration": {
                  "ProgressPercentage": number
               }
            },
            "ServiceUpdates": [
               {
                  "ServiceUpdateName": "string",
                  "Status": "string"
               }
            ]
         },
         "SecurityGroups": [
            {
               "SecurityGroupId": "string",
               "Status": "string"
            }
         ],
         "Shards": [
            {
               "Name": "string",
               "Nodes": [
                  {
                     "AvailabilityZone": "string",
                     "CreateTime": number,
                     "Endpoint": {
                        "Address": "string",
                        "Port": number
                     },
                     "Name": "string",
                     "Status": "string"
                  }
               ],
               "NumberOfNodes": number,
               "Slots": "string",
               "Status": "string"
            }
```

```
            ],
            "SnapshotRetentionLimit": number,
            "SnapshotWindow": "string",
            "SnsTopicArn": "string",
            "SnsTopicStatus": "string",
            "Status": "string",
            "SubnetGroupName": "string",
            "TLSEnabled": boolean
        }
    ],
    "NextToken": "string"
}
```

Response Elements

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

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

Clusters (p. 50)

A list of clusters

Type: Array of Cluster (p. 119) objects

NextToken (p. 50)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ClusterNotFoundFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

DescribeEngineVersions

Returns a list of the available Redis engine versions.

Request Syntax

```
{
   "DefaultOnly": boolean,
   "EngineVersion": "string",
   "MaxResults": number,
   "NextToken": "string",
   "ParameterGroupFamily": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

DefaultOnly (p. 53)

If true, specifies that only the default version of the specified engine or engine and major version combination is to be returned.

Type: Boolean

Required: No

EngineVersion (p. 53)

The Redis engine version

Type: String

Required: No

MaxResults (p. 53)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 53)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

ParameterGroupFamily (p. 53)

The name of a specific parameter group family to return details for.

Type: String

Required: No

Response Syntax

```
{
   "EngineVersions": [
      {
         "EnginePatchVersion": "string",
         "EngineVersion": "string",
         "ParameterGroupFamily": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

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

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

EngineVersions (p. 54)

A list of engine version details. Each element in the list contains detailed information about one engine version.

Type: Array of EngineVersionInfo (p. 127) objects

NextToken (p. 54)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

DescribeEvents

Returns events related to clusters, security groups, and parameter groups. You can obtain events specific to a particular cluster, security group, or parameter group by providing the name as a parameter. By default, only the events occurring within the last hour are returned; however, you can retrieve up to 14 days' worth of events if necessary.

Request Syntax

```
{
   "Duration": number,
   "EndTime": number,
   "MaxResults": number,
   "NextToken": "string",
   "SourceName": "string",
   "SourceType": "string",
   "StartTime": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

Duration (p. 56)

The number of minutes worth of events to retrieve.

Type: Integer

Required: No

EndTime (p. 56)

The end of the time interval for which to retrieve events, specified in ISO 8601 format. Example: 2017-03-30T07:03:49.555Z

Type: Timestamp

Required: No

MaxResults (p. 56)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 56)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

SourceName (p. 56)

The identifier of the event source for which events are returned. If not specified, all sources are included in the response.

Type: String

Required: No

SourceType (p. 56)

The event source to retrieve events for. If no value is specified, all events are returned.

Type: String

Valid Values: `node | parameter-group | subnet-group | cluster | user | acl`

Required: No

StartTime (p. 56)

The beginning of the time interval to retrieve events for, specified in ISO 8601 format. Example: 2017-03-30T07:03:49.555Z

Type: Timestamp

Required: No

Response Syntax

```
{
   "Events": [
      {
         "Date": number,
         "Message": "string",
         "SourceName": "string",
         "SourceType": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

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

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

Events (p. 57)

A list of events. Each element in the list contains detailed information about one event.

Type: Array of Event (p. 128) objects

NextToken (p. 57)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

DescribeParameterGroups

Returns a list of parameter group descriptions. If a parameter group name is specified, the list contains only the descriptions for that group.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string",
   "ParameterGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

MaxResults (p. 59)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 59)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

ParameterGroupName (p. 59)

The name of a specific parameter group to return details for.

Type: String

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "ParameterGroups": [
      {
         "ARN": "string",
         "Description": "string",
         "Family": "string",
```

```
            "Name": "string"
        }
    ]
}
```

Response Elements

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

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

NextToken (p. 59)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

ParameterGroups (p. 59)

A list of parameter groups. Each element in the list contains detailed information about one parameter group.

Type: Array of ParameterGroup (p. 133) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

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

DescribeParameters

Returns the detailed parameter list for a particular parameter group.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string",
   "ParameterGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

MaxResults (p. 62)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 62)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

ParameterGroupName (p. 62)

he name of a specific parameter group to return details for.

Type: String

Required: Yes

Response Syntax

```
{
   "NextToken": "string",
   "Parameters": [
      {
         "AllowedValues": "string",
         "DataType": "string",
         "Description": "string",
         "MinimumEngineVersion": "string",
```

```
            "Name": "string",
            "Value": "string"
        }
    ]
}
```

Response Elements

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

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

NextToken (p. 62)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Parameters (p. 62)

A list of parameters specific to a particular parameter group. Each element in the list contains detailed information about one parameter.

Type: Array of Parameter (p. 131) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

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

DescribeServiceUpdates

Returns details of the service updates

Request Syntax

```
{
   "ClusterNames": [ "string" ],
   "MaxResults": number,
   "NextToken": "string",
   "ServiceUpdateName": "string",
   "Status": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ClusterNames (p. 65)

The list of cluster names to identify service updates to apply

Type: Array of strings

Array Members: Maximum number of 20 items.

Required: No

MaxResults (p. 65)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 65)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

ServiceUpdateName (p. 65)

The unique ID of the service update to describe.

Type: String

Required: No

Status (p. 65)

The status(es) of the service updates to filter on

Type: Array of strings

Array Members: Maximum number of 4 items.

Valid Values: `available | in-progress | complete | scheduled`

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "ServiceUpdates": [
      {
         "AutoUpdateStartDate": number,
         "ClusterName": "string",
         "Description": "string",
         "NodesUpdated": "string",
         "ReleaseDate": number,
         "ServiceUpdateName": "string",
         "Status": "string",
         "Type": "string"
      }
   ]
}
```

Response Elements

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

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

NextToken (p. 66)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

ServiceUpdates (p. 66)

A list of service updates

Type: Array of ServiceUpdate (p. 139) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

See Also

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

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

DescribeSnapshots

Returns information about cluster snapshots. By default, DescribeSnapshots lists all of your snapshots; it can optionally describe a single snapshot, or just the snapshots associated with a particular cluster.

Request Syntax

```
{
   "ClusterName": "string",
   "MaxResults": number,
   "NextToken": "string",
   "ShowDetail": boolean,
   "SnapshotName": "string",
   "Source": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ClusterName (p. 68)

A user-supplied cluster identifier. If this parameter is specified, only snapshots associated with that specific cluster are described.

Type: String

Required: No

MaxResults (p. 68)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 68)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

ShowDetail (p. 68)

A Boolean value which if true, the shard configuration is included in the snapshot description.

Type: Boolean

Required: No

SnapshotName (p. 68)

A user-supplied name of the snapshot. If this parameter is specified, only this named snapshot is described.

Type: String

Required: No

Source (p. 68)

If set to system, the output shows snapshots that were automatically created by MemoryDB. If set to user the output shows snapshots that were manually created. If omitted, the output shows both automatically and manually created snapshots.

Type: String

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "Snapshots": [
      {
         "ARN": "string",
         "ClusterConfiguration": {
            "Description": "string",
            "EngineVersion": "string",
            "MaintenanceWindow": "string",
            "Name": "string",
            "NodeType": "string",
            "NumShards": number,
            "ParameterGroupName": "string",
            "Port": number,
            "Shards": [
               {
                  "Configuration": {
                     "ReplicaCount": number,
                     "Slots": "string"
                  },
                  "Name": "string",
                  "Size": "string",
                  "SnapshotCreationTime": number
               }
            ],
            "SnapshotRetentionLimit": number,
            "SnapshotWindow": "string",
            "SubnetGroupName": "string",
            "TopicArn": "string",
            "VpcId": "string"
         },
         "KmsKeyId": "string",
         "Name": "string",
         "Source": "string",
         "Status": "string"
      }
   ]
}
```

Response Elements

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

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

NextToken (p. 69)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Snapshots (p. 69)

A list of snapshots. Each item in the list contains detailed information about one snapshot.

Type: Array of Snapshot (p. 147) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SnapshotNotFoundFault

HTTP Status Code: 400

See Also

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

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

- AWS SDK for Ruby V3

DescribeSubnetGroups

Returns a list of subnet group descriptions. If a subnet group name is specified, the list contains only the description of that group.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string",
   "SubnetGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

MaxResults (p. 72)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 72)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

SubnetGroupName (p. 72)

The name of the subnet group to return details for.

Type: String

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "SubnetGroups": [
      {
         "ARN": "string",
         "Description": "string",
         "Name": "string",
```

```
         "Subnets": [
            {
               "AvailabilityZone": {
                  "Name": "string"
               },
               "Identifier": "string"
            }
         ],
         "VpcId": "string"
      }
   ]
}
```

Response Elements

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

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

NextToken (p. 72)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

SubnetGroups (p. 72)

A list of subnet groups. Each element in the list contains detailed information about one group.

Type: Array of SubnetGroup (p. 150) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SubnetGroupNotFoundFault

HTTP Status Code: 400

See Also

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

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

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

DescribeUsers

Returns a list of users.

Request Syntax

```
{
   "Filters": [
      {
         "Name": "string",
         "Values": [ "string" ]
      }
   ],
   "MaxResults": number,
   "NextToken": "string",
   "UserName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

Filters (p. 75)

Filter to determine the list of users to return.

Type: Array of Filter (p. 129) objects

Required: No

MaxResults (p. 75)

The maximum number of records to include in the response. If more records exist than the specified MaxResults value, a token is included in the response so that the remaining results can be retrieved.

Type: Integer

Required: No

NextToken (p. 75)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Required: No

UserName (p. 75)

The name of the user

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "Users": [
      {
         "AccessString": "string",
         "ACLNames": [ "string" ],
         "ARN": "string",
         "Authentication": {
            "PasswordCount": number,
            "Type": "string"
         },
         "MinimumEngineVersion": "string",
         "Name": "string",
         "Status": "string"
      }
   ]
}
```

Response Elements

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

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

NextToken (p. 76)

An optional argument to pass in case the total number of records exceeds the value of MaxResults. If nextToken is returned, there are more results available. The value of nextToken is a unique pagination token for each page. Make the call again using the returned token to retrieve the next page. Keep all other arguments unchanged.

Type: String

Users (p. 76)

A list of users.

Type: Array of User (p. 154) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

UserNotFoundFault

HTTP Status Code: 400

See Also

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

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

FailoverShard

Used to failover a shard

Request Syntax

```
{
   "ClusterName": "string",
   "ShardName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ClusterName (p. 78)

The cluster being failed over

Type: String

Required: Yes

ShardName (p. 78)

The name of the shard

Type: String

Required: Yes

Response Syntax

```
{
   "Cluster": {
      "ACLName": "string",
      "ARN": "string",
      "AutoMinorVersionUpgrade": boolean,
      "AvailabilityMode": "string",
      "ClusterEndpoint": {
         "Address": "string",
         "Port": number
      },
      "Description": "string",
      "EnginePatchVersion": "string",
      "EngineVersion": "string",
      "KmsKeyId": "string",
      "MaintenanceWindow": "string",
      "Name": "string",
      "NodeType": "string",
      "NumberOfShards": number,
      "ParameterGroupName": "string",
      "ParameterGroupStatus": "string",
```

```
      "PendingUpdates": {
         "ACLs": {
            "ACLToApply": "string"
         },
         "Resharding": {
            "SlotMigration": {
               "ProgressPercentage": number
            }
         },
         "ServiceUpdates": [
            {
               "ServiceUpdateName": "string",
               "Status": "string"
            }
         ]
      },
      "SecurityGroups": [
         {
            "SecurityGroupId": "string",
            "Status": "string"
         }
      ],
      "Shards": [
         {
            "Name": "string",
            "Nodes": [
               {
                  "AvailabilityZone": "string",
                  "CreateTime": number,
                  "Endpoint": {
                     "Address": "string",
                     "Port": number
                  },
                  "Name": "string",
                  "Status": "string"
               }
            ],
            "NumberOfNodes": number,
            "Slots": "string",
            "Status": "string"
         }
      ],
      "SnapshotRetentionLimit": number,
      "SnapshotWindow": "string",
      "SnsTopicArn": "string",
      "SnsTopicStatus": "string",
      "Status": "string",
      "SubnetGroupName": "string",
      "TLSEnabled": boolean
   }
}
```

Response Elements

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

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

Cluster (p. 78)

The cluster being failed over

Type: Cluster (p. 119) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

APICallRateForCustomerExceededFault

HTTP Status Code: 400

ClusterNotFoundFault

HTTP Status Code: 400

InvalidClusterStateFault

HTTP Status Code: 400

InvalidKMSKeyFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ShardNotFoundFault

HTTP Status Code: 400

TestFailoverNotAvailableFault

HTTP Status Code: 400

See Also

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

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

ListAllowedNodeTypeUpdates

Lists all available node types that you can scale to from your cluster's current node type. When you use the UpdateCluster operation to scale your cluster, the value of the NodeType parameter must be one of the node types returned by this operation.

Request Syntax

```
{
   "ClusterName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ClusterName (p. 81)

The name of the cluster you want to scale. MemoryDB uses the cluster name to identify the current node type being used by this cluster, and from that to create a list of node types you can scale up to.

Type: String

Required: Yes

Response Syntax

```
{
   "ScaleDownNodeTypes": [ "string" ],
   "ScaleUpNodeTypes": [ "string" ]
}
```

Response Elements

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

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

ScaleDownNodeTypes (p. 81)

A list node types which you can use to scale down your cluster.

Type: Array of strings

ScaleUpNodeTypes (p. 81)

A list node types which you can use to scale up your cluster.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ClusterNotFoundFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

ListTags

Lists all tags currently on a named resource. A tag is a key-value pair where the key and value are case-sensitive. You can use tags to categorize and track your MemoryDB resources. For more information, see Tagging your MemoryDB resources

Request Syntax

```
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ResourceArn (p. 83)

The Amazon Resource Name (ARN) of the resource for which you want the list of tags

Type: String

Required: Yes

Response Syntax

```
{
   "TagList": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Response Elements

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

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

TagList (p. 83)

A list of tags as key-value pairs.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLNotFoundFault

HTTP Status Code: 400

ClusterNotFoundFault

HTTP Status Code: 400

InvalidARNFault

HTTP Status Code: 400

InvalidClusterStateFault

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SnapshotNotFoundFault

HTTP Status Code: 400

SubnetGroupNotFoundFault

HTTP Status Code: 400

UserNotFoundFault

HTTP Status Code: 400

See Also

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

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

ResetParameterGroup

Modifies the parameters of a parameter group to the engine or system default value. You can reset specific parameters by submitting a list of parameter names. To reset the entire parameter group, specify the AllParameters and ParameterGroupName parameters.

Request Syntax

```
{
   "AllParameters": boolean,
   "ParameterGroupName": "string",
   "ParameterNames": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

AllParameters (p. 85)

If true, all parameters in the parameter group are reset to their default values. If false, only the parameters listed by ParameterNames are reset to their default values.

Type: Boolean

Required: No

ParameterGroupName (p. 85)

The name of the parameter group to reset.

Type: String

Required: Yes

ParameterNames (p. 85)

An array of parameter names to reset to their default values. If AllParameters is true, do not use ParameterNames. If AllParameters is false, you must specify the name of at least one parameter to reset.

Type: Array of strings

Required: No

Response Syntax

```
{
   "ParameterGroup": {
      "ARN": "string",
      "Description": "string",
      "Family": "string",
      "Name": "string"
   }
```

```
}
```

Response Elements

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

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

ParameterGroup (p. 85)

The parameter group being reset.

Type: ParameterGroup (p. 133) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterGroupStateFault

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

TagResource

A tag is a key-value pair where the key and value are case-sensitive. You can use tags to categorize and track all your MemoryDB resources. When you add or remove tags on clusters, those actions will be replicated to all nodes in the cluster. For more information, see Resource-level permissions.

For example, you can use cost-allocation tags to your MemoryDB resources, Amazon generates a cost allocation report as a comma-separated value (CSV) file with your usage and costs aggregated by your tags. You can apply tags that represent business categories (such as cost centers, application names, or owners) to organize your costs across multiple services. For more information, see Using Cost Allocation Tags.

Request Syntax

```
{
   "ResourceArn": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ResourceArn (p. 87)

The Amazon Resource Name (ARN) of the resource to which the tags are to be added

Type: String

Required: Yes

Tags (p. 87)

A list of tags to be added to this resource. A tag is a key-value pair. A tag key must be accompanied by a tag value, although null is accepted.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Required: Yes

Response Syntax

```
{
   "TagList": [
      {
         "Key": "string",
```

```
            "Value": "string"
        }
    ]
}
```

Response Elements

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

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

TagList (p. 87)

A list of tags as key-value pairs.

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLNotFoundFault

HTTP Status Code: 400

ClusterNotFoundFault

HTTP Status Code: 400

InvalidARNFault

HTTP Status Code: 400

InvalidClusterStateFault

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SnapshotNotFoundFault

HTTP Status Code: 400

SubnetGroupNotFoundFault

HTTP Status Code: 400

TagQuotaPerResourceExceeded

HTTP Status Code: 400

UserNotFoundFault

HTTP Status Code: 400

See Also

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

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

UntagResource

Use this operation to remove tags on a resource

Request Syntax

```
{
   "ResourceArn": "string",
   "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ResourceArn (p. 90)

The Amazon Resource Name (ARN) of the resource to which the tags are to be removed

Type: String

Required: Yes

TagKeys (p. 90)

The list of keys of the tags that are to be removed

Type: Array of strings

Required: Yes

Response Syntax

```
{
   "TagList": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Response Elements

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

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

TagList (p. 90)

The list of tags removed

Type: Array of Tag (p. 152) objects

Array Members: Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLNotFoundFault

HTTP Status Code: 400

ClusterNotFoundFault

HTTP Status Code: 400

InvalidARNFault

HTTP Status Code: 400

InvalidClusterStateFault

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SnapshotNotFoundFault

HTTP Status Code: 400

SubnetGroupNotFoundFault

HTTP Status Code: 400

TagNotFoundFault

HTTP Status Code: 400

UserNotFoundFault

HTTP Status Code: 400

See Also

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

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

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

UpdateACL

Changes the list of users that belong to the Access Control List.

Request Syntax

```
{
   "ACLName": "string",
   "UserNamesToAdd": [ "string" ],
   "UserNamesToRemove": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ACLName (p. 93)

The name of the Access Control List

Type: String

Required: Yes

UserNamesToAdd (p. 93)

The list of users to add to the Access Control List

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

UserNamesToRemove (p. 93)

The list of users to remove from the Access Control List

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

Response Syntax

```
{
```

```
   "ACL": {
      "ARN": "string",
      "Clusters": [ "string" ],
      "MinimumEngineVersion": "string",
      "Name": "string",
      "PendingChanges": {
         "UserNamesToAdd": [ "string" ],
         "UserNamesToRemove": [ "string" ]
      },
      "Status": "string",
      "UserNames": [ "string" ]
   }
}
```

Response Elements

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

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

ACL (p. 93)

The updated Access Control List

Type: ACL (p. 112) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLNotFoundFault

HTTP Status Code: 400

DefaultUserRequired

HTTP Status Code: 400

DuplicateUserNameFault

HTTP Status Code: 400

InvalidACLStateFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

UserNotFoundFault

HTTP Status Code: 400

See Also

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

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

UpdateCluster

Modifies the settings for a cluster. You can use this operation to change one or more cluster configuration settings by specifying the settings and the new values.

Request Syntax

```
{
   "ACLName": "string",
   "ClusterName": "string",
   "Description": "string",
   "EngineVersion": "string",
   "MaintenanceWindow": "string",
   "NodeType": "string",
   "ParameterGroupName": "string",
   "ReplicaConfiguration": {
      "ReplicaCount": number
   },
   "SecurityGroupIds": [ "string" ],
   "ShardConfiguration": {
      "ShardCount": number
   },
   "SnapshotRetentionLimit": number,
   "SnapshotWindow": "string",
   "SnsTopicArn": "string",
   "SnsTopicStatus": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ACLName (p. 96)

The Access Control List that is associated with the cluster

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

ClusterName (p. 96)

The name of the cluster to update

Type: String

Required: Yes

Description (p. 96)

The description of the cluster to update

Type: String

Required: No

EngineVersion (p. 96)

The upgraded version of the engine to be run on the nodes. You can upgrade to a newer engine version, but you cannot downgrade to an earlier engine version. If you want to use an earlier engine version, you must delete the existing cluster and create it anew with the earlier engine version.

Type: String

Required: No

MaintenanceWindow (p. 96)

The maintenance window to update

Type: String

Required: No

NodeType (p. 96)

A valid node type that you want to scale this cluster up or down to.

Type: String

Required: No

ParameterGroupName (p. 96)

The name of the parameter group to update

Type: String

Required: No

ReplicaConfiguration (p. 96)

The number of replicas that will reside in each shard

Type: ReplicaConfigurationRequest (p. 136) object

Required: No

SecurityGroupIds (p. 96)

The SecurityGroupIds to update

Type: Array of strings

Required: No

ShardConfiguration (p. 96)

The number of shards in the cluster

Type: ShardConfigurationRequest (p. 144) object

Required: No

SnapshotRetentionLimit (p. 96)

The number of days for which MemoryDB retains automatic cluster snapshots before deleting them. For example, if you set SnapshotRetentionLimit to 5, a snapshot that was taken today is retained for 5 days before being deleted.

Type: Integer

Required: No

SnapshotWindow (p. 96)

The daily time range (in UTC) during which MemoryDB begins taking a daily snapshot of your cluster.

Type: String

Required: No

SnsTopicArn (p. 96)

The SNS topic ARN to update

Type: String

Required: No

SnsTopicStatus (p. 96)

The status of the Amazon SNS notification topic. Notifications are sent only if the status is active.

Type: String

Required: No

Response Syntax

```
{
   "Cluster": {
      "ACLName": "string",
      "ARN": "string",
      "AutoMinorVersionUpgrade": boolean,
      "AvailabilityMode": "string",
      "ClusterEndpoint": {
         "Address": "string",
         "Port": number
      },
      "Description": "string",
      "EnginePatchVersion": "string",
      "EngineVersion": "string",
      "KmsKeyId": "string",
      "MaintenanceWindow": "string",
      "Name": "string",
      "NodeType": "string",
      "NumberOfShards": number,
      "ParameterGroupName": "string",
      "ParameterGroupStatus": "string",
      "PendingUpdates": {
         "ACLs": {
            "ACLToApply": "string"
         },
         "Resharding": {
            "SlotMigration": {
               "ProgressPercentage": number
            }
         },
         "ServiceUpdates": [
            {
               "ServiceUpdateName": "string",
               "Status": "string"
            }
         ]
      },
```

```
      "SecurityGroups": [
         {
            "SecurityGroupId": "string",
            "Status": "string"
         }
      ],
      "Shards": [
         {
            "Name": "string",
            "Nodes": [
               {
                  "AvailabilityZone": "string",
                  "CreateTime": number,
                  "Endpoint": {
                     "Address": "string",
                     "Port": number
                  },
                  "Name": "string",
                  "Status": "string"
               }
            ],
            "NumberOfNodes": number,
            "Slots": "string",
            "Status": "string"
         }
      ],
      "SnapshotRetentionLimit": number,
      "SnapshotWindow": "string",
      "SnsTopicArn": "string",
      "SnsTopicStatus": "string",
      "Status": "string",
      "SubnetGroupName": "string",
      "TLSEnabled": boolean
   }
}
```

Response Elements

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

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

Cluster (p. 98)

The updated cluster

Type: Cluster (p. 119) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

ACLNotFoundFault

HTTP Status Code: 400

ClusterNotFoundFault

HTTP Status Code: 400

ClusterQuotaForCustomerExceededFault

HTTP Status Code: 400

InvalidACLStateFault

HTTP Status Code: 400

InvalidClusterStateFault

HTTP Status Code: 400

InvalidKMSKeyFault

HTTP Status Code: 400

InvalidNodeStateFault

HTTP Status Code: 400

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

InvalidVPCNetworkStateFault

HTTP Status Code: 400

NodeQuotaForClusterExceededFault

HTTP Status Code: 400

NodeQuotaForCustomerExceededFault

HTTP Status Code: 400

NoOperationFault

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

ShardsPerClusterQuotaExceededFault

HTTP Status Code: 400

See Also

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

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

UpdateParameterGroup

Updates the parameters of a parameter group. You can modify up to 20 parameters in a single request by submitting a list parameter name and value pairs.

Request Syntax

```
{
   "ParameterGroupName": "string",
   "ParameterNameValues": [
      {
         "ParameterName": "string",
         "ParameterValue": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

ParameterGroupName (p. 102)

The name of the parameter group to update.

Type: String

Required: Yes

ParameterNameValues (p. 102)

An array of parameter names and values for the parameter update. You must supply at least one parameter name and value; subsequent arguments are optional. A maximum of 20 parameters may be updated per request.

Type: Array of ParameterNameValue (p. 134) objects

Required: Yes

Response Syntax

```
{
   "ParameterGroup": {
      "ARN": "string",
      "Description": "string",
      "Family": "string",
      "Name": "string"
   }
}
```

Response Elements

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

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

ParameterGroup (p. 102)

The updated parameter group

Type: ParameterGroup (p. 133) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterGroupStateFault

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

ParameterGroupNotFoundFault

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

See Also

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

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

UpdateSubnetGroup

Updates a subnet group. For more information, see Updating a subnet group

Request Syntax

```
{
   "Description": "string",
   "SubnetGroupName": "string",
   "SubnetIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

Description (p. 104)

A description of the subnet group

Type: String

Required: No

SubnetGroupName (p. 104)

The name of the subnet group

Type: String

Required: Yes

SubnetIds (p. 104)

The EC2 subnet IDs for the subnet group.

Type: Array of strings

Required: No

Response Syntax

```
{
   "SubnetGroup": {
      "ARN": "string",
      "Description": "string",
      "Name": "string",
      "Subnets": [
         {
            "AvailabilityZone": {
               "Name": "string"
            },
            "Identifier": "string"
         }
      ],
```

```
        "VpcId": "string"
    }
}
```

Response Elements

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

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

SubnetGroup (p. 104)

The updated subnet group

Type: SubnetGroup (p. 150) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidSubnet

HTTP Status Code: 400

ServiceLinkedRoleNotFoundFault

HTTP Status Code: 400

SubnetGroupNotFoundFault

HTTP Status Code: 400

SubnetInUse

HTTP Status Code: 400

SubnetNotAllowedFault

HTTP Status Code: 400

SubnetQuotaExceededFault

HTTP Status Code: 400

See Also

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

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

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

UpdateUser

Changes user password(s) and/or access string.

Request Syntax

```
{
   "AccessString": "string",
   "AuthenticationMode": {
      "Passwords": [ "string" ],
      "Type": "string"
   },
   "UserName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 156).

The request accepts the following data in JSON format.

AccessString (p. 107)

Access permissions string used for this user.

Type: String

Pattern: `.*\S.*`

Required: No

AuthenticationMode (p. 107)

Denotes the user's authentication properties, such as whether it requires a password to authenticate.

Type: AuthenticationMode (p. 117) object

Required: No

UserName (p. 107)

The name of the user

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: Yes

Response Syntax

```
{
   "User": {
      "AccessString": "string",
```

```
      "ACLNames": [ "string" ],
      "ARN": "string",
      "Authentication": {
         "PasswordCount": number,
         "Type": "string"
      },
      "MinimumEngineVersion": "string",
      "Name": "string",
      "Status": "string"
   }
}
```

Response Elements

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

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

User (p. 107)

The updated user

Type: User (p. 154) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 158).

InvalidParameterCombinationException

HTTP Status Code: 400

InvalidParameterValueException

HTTP Status Code: 400

InvalidUserStateFault

HTTP Status Code: 400

UserNotFoundFault

HTTP Status Code: 400

See Also

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

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

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

Data Types

The Amazon MemoryDB API contains several data types that various actions use. This section describes each data type in detail.

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

The following data types are supported:

ACL

An Access Control List. You can authenticate users with Access Contol Lists. ACLs enable you to control cluster access by grouping users. These Access control lists are designed as a way to organize access to clusters.

Contents

ARN

The Amazon Resource Name (ARN) of the ACL

Type: String

Required: No

Clusters

A list of clusters associated with the ACL.

Type: Array of strings

Required: No

MinimumEngineVersion

The minimum engine version supported for the ACL

Type: String

Required: No

Name

The name of the Access Control List

Type: String

Required: No

PendingChanges

A list of updates being applied to the ACL.

Type: ACLPendingChanges (p. 114) object

Required: No

Status

Indicates ACL status. Can be "creating", "active", "modifying", "deleting".

Type: String

Required: No

UserNames

The list of user names that belong to the ACL.

Type: Array of strings

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

See Also

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

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

ACLPendingChanges

Returns the updates being applied to the ACL.

Contents

UserNamesToAdd

A list of users being added to the ACL

Type: Array of strings

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

UserNamesToRemove

A list of user names being removed from the ACL

Type: Array of strings

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

See Also

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

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

ACLsUpdateStatus

The status of the ACL update

Contents

ACLToApply

A list of ACLs pending to be applied.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

See Also

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

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

Authentication

Denotes the user's authentication properties, such as whether it requires a password to authenticate. Used in output responses.

Contents

PasswordCount

The number of passwords belonging to the user. The maximum is two.

Type: Integer

Required: No

Type

Indicates whether the user requires a password to authenticate.

Type: String

Valid Values: `password | no-password`

Required: No

See Also

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

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

AuthenticationMode

Denotes the user's authentication properties, such as whether it requires a password to authenticate. Used in output responses.

Contents

Passwords

The password(s) used for authentication

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

Type

Indicates whether the user requires a password to authenticate. All newly-created users require a password.

Type: String

Valid Values: `password`

Required: No

See Also

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

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

AvailabilityZone

Indicates if the cluster has a Multi-AZ configuration (multiaz) or not (singleaz).

Contents

Name

The name of the Availability Zone.

Type: String

Required: No

See Also

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

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

Cluster

Contains all of the attributes of a specific cluster.

Contents

ACLName

The name of the Access Control List associated with this cluster.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

ARN

The Amazon Resource Name (ARN) of the cluster.

Type: String

Required: No

AutoMinorVersionUpgrade

When set to true, the cluster will automatically receive minor engine version upgrades after launch.

Type: Boolean

Required: No

AvailabilityMode

Indicates if the cluster has a Multi-AZ configuration (multiaz) or not (singleaz).

Type: String

Valid Values: `singleaz | multiaz`

Required: No

ClusterEndpoint

The cluster's configuration endpoint

Type: Endpoint (p. 126) object

Required: No

Description

A description of the cluster

Type: String

Required: No

EnginePatchVersion

The Redis engine patch version used by the cluster

Type: String

Required: No

EngineVersion

The Redis engine version used by the cluster

Type: String

Required: No

KmsKeyId

The ID of the KMS key used to encrypt the cluster

Type: String

Required: No

MaintenanceWindow

Specifies the weekly time range during which maintenance on the cluster is performed. It is specified as a range in the format ddd:hh24:mi-ddd:hh24:mi (24H Clock UTC). The minimum maintenance window is a 60 minute period.

Type: String

Required: No

Name

The user-supplied name of the cluster. This identifier is a unique key that identifies a cluster.

Type: String

Required: No

NodeType

The cluster's node type

Type: String

Required: No

NumberOfShards

The number of shards in the cluster

Type: Integer

Required: No

ParameterGroupName

The name of the parameter group used by the cluster

Type: String

Required: No

ParameterGroupStatus

The status of the parameter group used by the cluster, for example 'active' or 'applying'.

Type: String

Required: No

PendingUpdates

A group of settings that are currently being applied.

Type: ClusterPendingUpdates (p. 125) object

Required: No

SecurityGroups

A list of security groups used by the cluster

Type: Array of SecurityGroupMembership (p. 138) objects

Required: No

Shards

A list of shards that are members of the cluster.

Type: Array of Shard (p. 142) objects

Required: No

SnapshotRetentionLimit

The number of days for which MemoryDB retains automatic snapshots before deleting them. For example, if you set SnapshotRetentionLimit to 5, a snapshot that was taken today is retained for 5 days before being deleted.

Type: Integer

Required: No

SnapshotWindow

The daily time range (in UTC) during which MemoryDB begins taking a daily snapshot of your shard. Example: 05:00-09:00 If you do not specify this parameter, MemoryDB automatically chooses an appropriate time range.

Type: String

Required: No

SnsTopicArn

The Amazon Resource Name (ARN) of the SNS notification topic

Type: String

Required: No

SnsTopicStatus

The SNS topic must be in Active status to receive notifications

Type: String

Required: No

Status

The status of the cluster. For example, Available, Updating, Creating.

Type: String

Required: No

SubnetGroupName

The name of the subnet group used by the cluster

Type: String

Required: No

TLSEnabled

A flag to indicate if In-transit encryption is enabled

Type: Boolean

Required: No

See Also

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

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

ClusterConfiguration

A list of cluster configuration options.

Contents

Description

The description of the cluster configuration

Type: String

Required: No

EngineVersion

The Redis engine version used by the cluster

Type: String

Required: No

MaintenanceWindow

The specified maintenance window for the cluster

Type: String

Required: No

Name

The name of the cluster

Type: String

Required: No

NodeType

The node type used for the cluster

Type: String

Required: No

NumShards

The number of shards in the cluster

Type: Integer

Required: No

ParameterGroupName

The name of parameter group used by the cluster

Type: String

Required: No

Port

The port used by the cluster

Type: Integer

Required: No

Shards

The list of shards in the cluster

Type: Array of ShardDetail (p. 145) objects

Required: No

SnapshotRetentionLimit

The snapshot retention limit set by the cluster

Type: Integer

Required: No

SnapshotWindow

The snapshot window set by the cluster

Type: String

Required: No

SubnetGroupName

The name of the subnet group used by the cluster

Type: String

Required: No

TopicArn

The Amazon Resource Name (ARN) of the SNS notification topic for the cluster

Type: String

Required: No

VpcId

The ID of the VPC the cluster belongs to

Type: String

Required: No

See Also

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

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

ClusterPendingUpdates

A list of updates being applied to the cluster

Contents

ACLs

A list of ACLs associated with the cluster that are being updated

Type: ACLsUpdateStatus (p. 115) object

Required: No

Resharding

The status of an online resharding operation.

Type: ReshardingStatus (p. 137) object

Required: No

ServiceUpdates

A list of service updates being applied to the cluster

Type: Array of PendingModifiedServiceUpdate (p. 135) objects

Required: No

See Also

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

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

Endpoint

Represents the information required for client programs to connect to the cluster and its nodes.

Contents

Address

The DNS hostname of the node.

Type: String

Required: No

Port

The port number that the engine is listening on.

Type: Integer

Required: No

See Also

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

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

EngineVersionInfo

Provides details of the Redis engine version

Contents

EnginePatchVersion

The patched engine version

Type: String

Required: No

EngineVersion

The engine version

Type: String

Required: No

ParameterGroupFamily

Specifies the name of the parameter group family to which the engine default parameters apply.

Type: String

Required: No

See Also

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

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

Event

Represents a single occurrence of something interesting within the system. Some examples of events are creating a cluster or adding or removing a node.

Contents

Date

The date and time when the event occurred.

Type: Timestamp

Required: No

Message

The text of the event.

Type: String

Required: No

SourceName

The name for the source of the event. For example, if the event occurred at the cluster level, the identifier would be the name of the cluster.

Type: String

Required: No

SourceType

Specifies the origin of this event - a cluster, a parameter group, a security group, etc.

Type: String

Valid Values: `node | parameter-group | subnet-group | cluster | user | acl`

Required: No

See Also

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

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

Filter

Used to streamline results of a search based on the property being filtered.

Contents

Name

The property being filtered. For example, UserName.

Type: String

Pattern: `.*\S.*`

Required: Yes

Values

The property values to filter on. For example, "user-123".

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: `.*\S.*`

Required: Yes

See Also

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

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

Node

Represents an individual node within a cluster. Each node runs its own instance of the cluster's protocol-compliant caching software.

Contents

AvailabilityZone

The Availability Zone in which the node resides

Type: String

Required: No

CreateTime

The date and time when the node was created.

Type: Timestamp

Required: No

Endpoint

The hostname for connecting to this node.

Type: Endpoint (p. 126) object

Required: No

Name

The node identifier. A node name is a numeric identifier (0001, 0002, etc.). The combination of cluster name, shard name and node name uniquely identifies every node used in a customer's Amazon account.

Type: String

Required: No

Status

The status of the service update on the node

Type: String

Required: No

See Also

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

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

Parameter

Describes an individual setting that controls some aspect of MemoryDB behavior.

Contents

AllowedValues

The valid range of values for the parameter.

Type: String

Required: No

DataType

The parameter's data type

Type: String

Required: No

Description

A description of the parameter

Type: String

Required: No

MinimumEngineVersion

The earliest engine version to which the parameter can apply.

Type: String

Required: No

Name

The name of the parameter

Type: String

Required: No

Value

The value of the parameter

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2

- AWS SDK for Ruby V3

ParameterGroup

Represents the output of a CreateParameterGroup operation. A parameter group represents a combination of specific values for the parameters that are passed to the engine software during startup.

Contents

ARN

The Amazon Resource Name (ARN) of the parameter group

Type: String

Required: No

Description

A description of the parameter group

Type: String

Required: No

Family

The name of the parameter group family that this parameter group is compatible with.

Type: String

Required: No

Name

The name of the parameter group

Type: String

Required: No

See Also

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

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

ParameterNameValue

Describes a name-value pair that is used to update the value of a parameter.

Contents

ParameterName

The name of the parameter

Type: String

Required: No

ParameterValue

The value of the parameter

Type: String

Required: No

See Also

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

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

PendingModifiedServiceUpdate

Update action that has yet to be processed for the corresponding apply/stop request

Contents

ServiceUpdateName

The unique ID of the service update

Type: String

Required: No

Status

The status of the service update

Type: String

Valid Values: `available | in-progress | complete | scheduled`

Required: No

See Also

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

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

ReplicaConfigurationRequest

A request to configure the number of replicas in a shard

Contents

ReplicaCount

The number of replicas to scale up or down to

Type: Integer

Required: No

See Also

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

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

ReshardingStatus

The status of the online resharding

Contents

SlotMigration

The status of the online resharding slot migration

Type: SlotMigration (p. 146) object

Required: No

See Also

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

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

SecurityGroupMembership

Represents a single security group and its status.

Contents

SecurityGroupId

The identifier of the security group.

Type: String

Required: No

Status

The status of the security group membership. The status changes whenever a security group is modified, or when the security groups assigned to a cluster are modified.

Type: String

Required: No

See Also

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

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

ServiceUpdate

An update that you can apply to your MemoryDB clusters.

Contents

AutoUpdateStartDate

The date at which the service update will be automatically applied

Type: Timestamp

Required: No

ClusterName

The name of the cluster to which the service update applies

Type: String

Required: No

Description

Provides details of the service update

Type: String

Required: No

NodesUpdated

A list of nodes updated by the service update

Type: String

Required: No

ReleaseDate

The date when the service update is initially available

Type: Timestamp

Required: No

ServiceUpdateName

The unique ID of the service update

Type: String

Required: No

Status

The status of the service update

Type: String

Valid Values: `available | in-progress | complete | scheduled`

Required: No

Type

Reflects the nature of the service update

Type: String

Valid Values: `security-update`

Required: No

See Also

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

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

ServiceUpdateRequest

A request to apply a service update

Contents

ServiceUpdateNameToApply

The unique ID of the service update

Type: String

Required: No

See Also

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

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

Shard

Represents a collection of nodes in a cluster. One node in the node group is the read/write primary node. All the other nodes are read-only Replica nodes.

Contents

Name

The name of the shard

Type: String

Required: No

Nodes

A list containing information about individual nodes within the shard

Type: Array of Node (p. 130) objects

Required: No

NumberOfNodes

The number of nodes in the shard

Type: Integer

Required: No

Slots

The keyspace for this shard.

Type: String

Required: No

Status

The current state of this replication group - creating, available, modifying, deleting.

Type: String

Required: No

See Also

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

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

ShardConfiguration

Shard configuration options. Each shard configuration has the following: Slots and ReplicaCount.

Contents

ReplicaCount

The number of read replica nodes in this shard.

Type: Integer

Required: No

Slots

A string that specifies the keyspace for a particular node group. Keyspaces range from 0 to 16,383. The string is in the format startkey-endkey.

Type: String

Required: No

See Also

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

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

ShardConfigurationRequest

A request to configure the sharding properties of a cluster

Contents

ShardCount

The number of shards in the cluster

Type: Integer

Required: No

See Also

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

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

ShardDetail

Provides details of a shard in a snapshot

Contents

Configuration

The configuration details of the shard

Type: ShardConfiguration (p. 143) object

Required: No

Name

The name of the shard

Type: String

Required: No

Size

The size of the shard's snapshot

Type: String

Required: No

SnapshotCreationTime

The date and time that the shard's snapshot was created

Type: Timestamp

Required: No

See Also

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

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

SlotMigration

Represents the progress of an online resharding operation.

Contents

ProgressPercentage

The percentage of the slot migration that is complete.

Type: Double

Required: No

See Also

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

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

Snapshot

Represents a copy of an entire cluster as of the time when the snapshot was taken.

Contents

ARN

The ARN (Amazon Resource Name) of the snapshot.

Type: String

Required: No

ClusterConfiguration

The configuration of the cluster from which the snapshot was taken

Type: ClusterConfiguration (p. 123) object

Required: No

KmsKeyId

The ID of the KMS key used to encrypt the snapshot.

Type: String

Required: No

Name

The name of the snapshot

Type: String

Required: No

Source

Indicates whether the snapshot is from an automatic backup (automated) or was created manually (manual).

Type: String

Required: No

Status

The status of the snapshot. Valid values: creating | available | restoring | copying | deleting.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go

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

Subnet

Represents the subnet associated with a cluster. This parameter refers to subnets defined in Amazon Virtual Private Cloud (Amazon VPC) and used with MemoryDB.

Contents

AvailabilityZone

The Availability Zone where the subnet resides

Type: AvailabilityZone (p. 118) object

Required: No

Identifier

The unique identifier for the subnet.

Type: String

Required: No

See Also

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

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

SubnetGroup

Represents the output of one of the following operations:

- CreateSubnetGroup
- UpdateSubnetGroup

A subnet group is a collection of subnets (typically private) that you can designate for your clusters running in an Amazon Virtual Private Cloud (VPC) environment.

Contents

ARN

The ARN (Amazon Resource Name) of the subnet group.

Type: String

Required: No

Description

A description of the subnet group

Type: String

Required: No

Name

The name of the subnet group

Type: String

Required: No

Subnets

A list of subnets associated with the subnet group.

Type: Array of Subnet (p. 149) objects

Required: No

VpcId

The Amazon Virtual Private Cloud identifier (VPC ID) of the subnet group.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2

- AWS SDK for Ruby V3

Tag

A tag that can be added to an MemoryDB resource. Tags are composed of a Key/Value pair. You can use tags to categorize and track all your MemoryDB resources. When you add or remove tags on clusters, those actions will be replicated to all nodes in the cluster. A tag with a null Value is permitted. For more information, see Tagging your MemoryDB resources

Contents

Key

The key for the tag. May not be null.

Type: String

Required: No

Value

The tag's value. May be null.

Type: String

Required: No

See Also

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

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

UnprocessedCluster

A cluster whose updates have failed

Contents

ClusterName

The name of the cluster

Type: String

Required: No

ErrorMessage

The error message associated with the update failure

Type: String

Required: No

ErrorType

The error type associated with the update failure

Type: String

Required: No

See Also

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

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

User

You create users and assign them specific permissions by using an access string. You assign the users to Access Control Lists aligned with a specific role (administrators, human resources) that are then deployed to one or more MemoryDB clusters.

Contents

AccessString

Access permissions string used for this user.

Type: String

Required: No

ACLNames

The names of the Access Control Lists to which the user belongs

Type: Array of strings

Length Constraints: Minimum length of 1.

Pattern: `[a-zA-Z][a-zA-Z0-9\-]*`

Required: No

ARN

The Amazon Resource Name (ARN) of the user.

Type: String

Required: No

Authentication

Denotes whether the user requires a password to authenticate.

Type: Authentication (p. 116) object

Required: No

MinimumEngineVersion

The minimum engine version supported for the user

Type: String

Required: No

Name

The name of the user

Type: String

Required: No

Status

Indicates the user status. Can be "active", "modifying" or "deleting".

Type: String

Required: No

See Also

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

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

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signature Version 4 Signing Process in the *Amazon Web Services General Reference*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm

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

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

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

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

For more information, see Task 2: Create a String to Sign for Signature Version 4 in the *Amazon Web Services General Reference*.

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

Type: string

Required: Conditional

X-Amz-Date

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

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is

not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Handling Dates in Signature Version 4 in the *Amazon Web Services General Reference*.

Type: string

Required: Conditional

X-Amz-Security-Token

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

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

Type: string

Required: Conditional

X-Amz-Signature

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

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

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Task 1: Create a Canonical Request For Signature Version 4 in the *Amazon Web Services General Reference*.

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

Type: string

Required: Conditional

Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

InvalidQueryParameter

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400