
Amazon ElastiCache

API Reference

API Version 2011-07-15



Amazon ElastiCache: API Reference

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Welcome

Amazon ElastiCache is a web service that makes it easier to set up, operate, and scale a distributed cache in the cloud.

With Amazon ElastiCache, customers gain all of the benefits of a high-performance, in-memory cache with far less of the administrative burden of launching and managing a distributed cache. The service makes set-up, scaling, and cluster failure handling much simpler than in a self-managed cache deployment.

In addition, through integration with Amazon CloudWatch, customers get enhanced visibility into the key performance statistics associated with their cache and can receive alarms if a part of their cache runs hot.

This document was last updated on August 5, 2011.

Actions

The actions described in this guide are called using the AWS Query protocol.

The following actions are supported:

- [AuthorizeCacheSecurityGroupIngress](#) (p. 3)
- [CreateCacheCluster](#) (p. 6)
- [CreateCacheParameterGroup](#) (p. 11)
- [CreateCacheSecurityGroup](#) (p. 14)
- [DeleteCacheCluster](#) (p. 16)
- [DeleteCacheParameterGroup](#) (p. 19)
- [DeleteCacheSecurityGroup](#) (p. 21)
- [DescribeCacheClusters](#) (p. 23)
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- [DescribeCacheParameters](#) (p. 29)
- [DescribeCacheSecurityGroups](#) (p. 31)
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- [DescribeEvents](#) (p. 37)
- [ModifyCacheCluster](#) (p. 39)
- [ModifyCacheParameterGroup](#) (p. 45)
- [RebootCacheCluster](#) (p. 47)
- [ResetCacheParameterGroup](#) (p. 49)
- [RevokeCacheSecurityGroupIngress](#) (p. 50)

AuthorizeCacheSecurityGroupIngress

Description

Authorizes ingress to a CacheSecurityGroup using EC2 Security Groups as authorization (therefore the application using the cache must be running on EC2 clusters). This API requires the following parameters: EC2SecurityGroupName and EC2SecurityGroupOwnerId.



Note

You cannot authorize ingress from an EC2 security group in one Region to an Amazon Cache Cluster in another.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheSecurityGroupName</i>	The name of the Cache Security Group to authorize. Type: String	Yes
<i>EC2SecurityGroupName</i>	Name of the EC2 Security Group to include in the authorization. Type: String	Yes
<i>EC2SecurityGroupOwnerId</i>	AWS Account Number of the owner of the security group specified in the EC2SecurityGroupName parameter. The AWS Access Key ID is not an acceptable value. Type: String	Yes

Response Elements

The following elements come wrapped in a CacheSecurityGroup structure.

Name	Description
CacheSecurityGroupName	Specifies the name of the Cache Security Group. Type: String
Description	Provides the description of the Cache Security Group. Type: String
EC2SecurityGroups	Contains a list of EC2SecurityGroup (p. 60) elements. Type: EC2SecurityGroup (p. 60) list
OwnerId	Provides the AWS ID of the owner of a specific Cache Security Group. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
AuthorizationAlreadyExists	The specified EC2 Security Group is already authorized for the specified Cache Security Group.	400
CacheSecurityGroupNotFound	<i>CacheSecurityGroupName</i> does not refer to an existing Cache Security Group.	404
InvalidCacheSecurityGroupState	The state of the Cache Security Group does not allow deletion.	400
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
?Action=AuthorizeCacheSecurityGroupIngress
&EC2SecurityGroupName=default
&CacheSecurityGroupName=mygroup
&EC2SecurityGroupOwnerId=1234-5678-1234
&Version=2011-07-15
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2011-02-12T01%3A29%3A15.746Z
&AWSAccessKeyId=YOUR-ACCESS-KEY
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<AuthorizeCacheSecurityGroupIngressResponse
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <AuthorizeCacheSecurityGroupIngressResult>
    <CacheSecurityGroup>
      <EC2SecurityGroups>
        <EC2SecurityGroup>
          <Status>authorizing</Status>
          <EC2SecurityGroupName>default</EC2SecurityGroupName>
        </EC2SecurityGroup>
      </EC2SecurityGroups>
      <EC2SecurityGroupOwnerId>565419523791</EC2SecurityGroupOwnerId>
      <CacheSecurityGroupName>mygroup</CacheSecurityGroupName>
      <OwnerId>123456781234</OwnerId>
      <Description>My security group</Description>
    </CacheSecurityGroup>
  </AuthorizeCacheSecurityGroupIngressResult>
```

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```
<ResponseMetadata>  
  <RequestId>817fa999-3647-11e0-ae57-f96cfe56749c</RequestId>  
</ResponseMetadata>  
</AuthorizeCacheSecurityGroupIngressResponse>
```


CreateCacheCluster

Description



Creates a new Cache Cluster.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>AutoMinorVersionUpgrade</i>	Indicates that minor engine upgrades will be applied automatically to the Cache Cluster during the maintenance window. Default: <code>true</code> Type: Boolean	No
<i>CacheClusterId</i>	The Cache Cluster identifier. This parameter is stored as a lowercase string. Constraints: <ul style="list-style-type: none"> • Must contain from 1 to 20 alphanumeric characters or hyphens. • First character must be a letter. • Cannot end with a hyphen or contain two consecutive hyphens. Example: <code>mycachecoluster</code> Type: String	Yes
<i>CacheNodeType</i>	The compute and memory capacity of nodes in a Cache Cluster. Valid values: <code>cache.m1.large</code> <code>cache.m1.xlarge</code> <code>cache.m2.xlarge</code> <code>cache.m2.2xlarge</code> <code>cache.m2.4xlarge</code> <code>cache.c1.xlarge</code> Type: String	Yes
<i>CacheParameterGroupName</i>	The name of the cache parameter group to associate with this Cache cluster. If this argument is omitted, the default <code>CacheParameterGroup</code> for the specified engine will be used. Type: String	No
<i>CacheSecurityGroupNames.member.N</i>	A list of Cache Security Group Names to associate with this Cache Cluster. Type: String list	Yes

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Request Parameters**

Name	Description	Required
<i>Engine</i>	<p>The name of the cache engine to be used for this Cache Cluster.</p> <p> Note</p> <p>Currently, <i>memcached</i> is the only cache engine supported by the service.</p> <p>Type: String</p>	Yes
<i>EngineVersion</i>	<p>The version of the cache engine to be used for this cluster.</p> <p>Type: String</p>	No
<i>NotificationTopicArn</i>	<p>The Amazon Resource Name (ARN) of the Amazon Simple Notification Service (SNS) topic to which notifications will be sent.</p> <p> Note</p> <p>The Amazon SNS topic owner must be the same as the Cache Cluster owner.</p> <p>Type: String</p>	No
<i>NumCacheNodes</i>	<p>The number of Cache Nodes the Cache Cluster should have.</p> <p>Type: Integer</p>	Yes
<i>Port</i>	<p>The port number on which each of the Cache Nodes will accept connections.</p> <p>Type: Integer</p>	No
<i>PreferredAvailabilityZone</i>	<p>The EC2 Availability Zone that the Cache Cluster will be created in.</p> <p>In normal use, all CacheNodes belonging to a CacheCluster are placed in the preferred availability zone. In rare circumstances, some of the CacheNodes might temporarily be in a different availability zone.</p> <p>Default: System chosen (random) availability zone.</p> <p>Type: String</p>	No
<i>PreferredMaintenanceWindow</i>	<p>The weekly time range (in UTC) during which system maintenance can occur.</p> <p>Example: <code>sun:05:00-sun:09:00</code></p> <p>Type: String</p>	No

Response Elements

The following elements come wrapped in a `CacheCluster` structure.

Name	Description
<code>AutoMinorVersionUpgrade</code>	Indicates that minor version patches are applied automatically. Type: Boolean
<code>CacheClusterCreateTime</code>	Provides the date and time the Cache Cluster was created. Type: DateTime
<code>CacheClusterId</code>	Specifies a user-supplied identifier. This is the unique key that identifies a Cache Cluster. Type: String
<code>CacheClusterStatus</code>	Specifies the current state of this Cache Cluster. Type: String
<code>CacheNodeType</code>	Specifies the name of the compute and memory capacity node type for the Cache Cluster. Type: String
<code>CacheNodes</code>	Specifies the list of Cache Nodes the Cache Cluster contains. Type: CacheNode (p. 55) list
<code>CacheParameterGroup</code>	Provides the status of the Cache Parameter Group assigned to the Cache Cluster. Type: CacheParameterGroupStatus (p. 57)
<code>CacheSecurityGroups</code>	Provides the list of Cache Security Group elements containing <i>CacheSecurityGroup.Name</i> and <i>CacheSecurityGroup.Status</i> sub-elements. Type: CacheSecurityGroupMembership (p. 58) list
<code>Engine</code>	Provides the name of the cache engine to be used for this Cache Cluster. Type: String
<code>EngineVersion</code>	Provides the cache engine version of the cache engine to be used for this Cache Cluster. Type: String
<code>NotificationConfiguration</code>	Specifies the notification details the Cache Cluster contains. Type: NotificationConfiguration (p. 62)
<code>NumCacheNodes</code>	Specifies the number of Cache Nodes the Cache Cluster contains. Type: Integer
<code>PendingModifiedValues</code>	Specifies that changes to the Cache Cluster are pending. This element is only included when changes are pending. Specific changes are identified by sub-elements. Type: PendingModifiedValues (p. 64)

Name	Description
PreferredAvailabilityZone	Specifies the name of the Availability Zone the Cache Cluster is located in. Type: String
PreferredMaintenanceWindow	Specifies the weekly time range (in UTC) during which system maintenance can occur. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
CacheClusterAlreadyExists	User already has a Cache Cluster with the given identifier.	400
CacheParameterGroupNotFound	<i>CacheParameterGroupName</i> does not refer to an existing Cache Parameter Group.	404
CacheSecurityGroupNotFound	<i>CacheSecurityGroupName</i> does not refer to an existing Cache Security Group.	404
ClusterQuotaForCustomerExceeded	Request would result in user exceeding the allowed number of Cache Clusters per customer.	400
InsufficientCacheClusterCapacity	Specified Cache node type is not available in the specified Availability Zone.	400
InvalidParameterCombination		400
InvalidParameterValue		400
NodeQuotaForClusterExceeded	Request would result in user exceeding the allowed number of Cache Nodes in a single Cache Cluster.	400
NodeQuotaForCustomerExceeded	Request would result in user exceeding the allowed number of Cache Nodes per customer.	400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
?Action=CreateCacheCluster
&NumCacheNodes=3
&CacheClusterId=mycache
&Engine=memcached
```

```
&CacheSecurityGroupNames.member.1=default
&CacheNodeType=cache.m1.large
&Version=2011-07-15
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2011-07-27T00%3A33%3A09.322Z
&AWSAccessKeyId=YOUR-ACCESS-KEY
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<CreateCacheClusterResponse xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <CreateCacheClusterResult>
    <CacheCluster>
      <CacheClusterStatus>creating</CacheClusterStatus>
      <NumCacheNodes>3</NumCacheNodes>
      <Engine>memcached</Engine>
      <PendingModifiedValues/>
      <EngineVersion>1.4.5</EngineVersion>
      <AutoMinorVersionUpgrade>true</AutoMinorVersionUpgrade>
      <PreferredMaintenanceWindow>sun:05:00-
sun:09:00</PreferredMaintenanceWindow>
      <CacheNodeType>cache.m1.large</CacheNodeType>
      <CacheSecurityGroups>
        <CacheSecurityGroup>
          <CacheSecurityGroupName>default</CacheSecurityGroupName>

          <Status>active</Status>
        </CacheSecurityGroup>
      </CacheSecurityGroups>
      <CacheClusterId>mycache</CacheClusterId>
    </CacheCluster>
  </CreateCacheClusterResult>
  <ResponseMetadata>
    <RequestId>aaf2e796-363f-11e0-a564-8f11342c56b0</RequestId>
  </ResponseMetadata>
</CreateCacheClusterResponse>
```


CreateCacheParameterGroup

Description

Creates a new Cache Parameter Group. Cache Parameter groups control the parameters for a Cache Cluster.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheParameterGroupFamily</i>	<p>The name of the Cache Parameter Group Family the Cache Parameter Group can be used with.</p> <p> Note</p> <p>Currently, <i>memcached1.4</i> is the only cache parameter group family supported by the service.</p> <p>Type: String</p>	Yes
<i>CacheParameterGroupName</i>	<p>The name of the Cache Parameter Group.</p> <p>Type: String</p>	Yes
<i>Description</i>	<p>The description for the Cache Parameter Group.</p> <p>Type: String</p>	Yes

Response Elements

The following elements come wrapped in a `CacheParameterGroup` structure.

Name	Description
<code>CacheParameterGroupFamily</code>	<p>Provides the name of the Cache Parameter Group Family that this Cache Parameter Group is compatible with.</p> <p>Type: String</p>
<code>CacheParameterGroupName</code>	<p>Provides the name of the Cache Parameter Group.</p> <p>Type: String</p>
<code>Description</code>	<p>Provides the customer-specified description for this Cache Parameter Group.</p> <p>Type: String</p>

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
CacheParameterGroupAlreadyExists	A Cache Parameter Group with the name specified in <i>CacheParameterGroupName</i> already exists.	400
CacheParameterGroupQuotaExceeded	Request would result in user exceeding the allowed number of Cache Parameter Groups.	400
InvalidCacheParameterGroupState	The state of the Cache Parameter Group does not allow for the requested action to occur.	400
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
?Action=CreateCacheParameterGroup
&Description=My%20first%20cache%20parameter%20group
&CacheParameterGroupFamily=memcached1.4
&CacheParameterGroupName=mycacheparametergroup1
&Version=2011-07-15
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2011-07-27T02%3A34%3A47.462Z
&AWSAccessKeyId=YOUR-ACCESS-KEY
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<CreateCacheParameterGroupResponse
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <CreateCacheParameterGroupResult>
    <CacheParameterGroup>
      <CacheParameterGroupName>mycacheparametergroup3</CacheParameterGroupName>

      <CacheParameterGroupFamily>memcached1.4</CacheParameterGroupFamily>
      <Description>My first cache parameter group</Description>
    </CacheParameterGroup>
  </CreateCacheParameterGroupResult>
  <ResponseMetadata>
    <RequestId>05699541-b7f9-11e0-9326-b7275b9d4a6c</RequestId>
  </ResponseMetadata>
</CreateCacheParameterGroupResponse>
```



CreateCacheSecurityGroup

Description

Creates a new Cache Security Group. Cache Security groups control access to one or more Cache Clusters.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheSecurityGroupName</i>	The name for the Cache Security Group. This value is stored as a lowercase string. Constraints: Must contain no more than 255 alphanumeric characters. Must not be "Default". Example: mysecuritygroup Type: String	Yes
<i>Description</i>	The description for the Cache Security Group. Type: String	Yes

Response Elements

The following elements come wrapped in a *CacheSecurityGroup* structure.

Name	Description
<i>CacheSecurityGroupName</i>	Specifies the name of the Cache Security Group. Type: String
<i>Description</i>	Provides the description of the Cache Security Group. Type: String
<i>EC2SecurityGroups</i>	Contains a list of EC2SecurityGroup (p. 60) elements. Type: EC2SecurityGroup (p. 60) list
<i>OwnerId</i>	Provides the AWS ID of the owner of a specific Cache Security Group. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
<i>CacheSecurityGroupAlreadyExists</i>	A Cache Security Group with the name specified in <i>CacheSecurityGroupName</i> already exists.	400

Error	Description	HTTP Status Code
CacheSecurityGroupQuotaExceeded	Request would result in user exceeding the allowed number of Cache Security Groups.	400
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/  
?Action=CreateCacheSecurityGroup  
&CacheSecurityGroupName=mycachesecuritygroup  
&Description=My%20cache%20security%20group  
&Version=2011-07-15  
&SignatureVersion=2  
&SignatureMethod=HmacSHA256  
&Timestamp=2011-07-27T02%3A43%3A10.703Z  
&AWSAccessKeyId=YOUR-ACCESS-KEY  
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<CreateCacheSecurityGroupResponse  
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">  
  <CreateCacheSecurityGroupResult>  
    <CacheSecurityGroup>  
      <EC2SecurityGroups/>  
      <CacheSecurityGroupName>mycachesecuritygroup</CacheSecurityGroupName>  
      <OwnerId>123456789012</OwnerId>  
      <Description>My cache security group</Description>  
    </CacheSecurityGroup>  
  </CreateCacheSecurityGroupResult>  
  <ResponseMetadata>  
    <RequestId>2b1c8035-b7fa-11e0-9326-b7275b9d4a6c</RequestId>  
  </ResponseMetadata>  
</CreateCacheSecurityGroupResponse>
```

DeleteCacheCluster

Description

Deletes a previously provisioned Cache Cluster. A successful response from the web service indicates the request was received correctly. This action cannot be canceled or reverted. DeleteCacheCluster deletes all associated Cache Nodes, node endpoints and the Cache Cluster itself.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheClusterId</i>	The Cache Cluster identifier for the Cache Cluster to be deleted. This parameter isn't case sensitive. Type: String	Yes

Response Elements

The following elements come wrapped in a `CacheCluster` structure.

Name	Description
<i>AutoMinorVersionUpgrade</i>	Indicates that minor version patches are applied automatically. Type: Boolean
<i>CacheClusterCreateTime</i>	Provides the date and time the Cache Cluster was created. Type: DateTime
<i>CacheClusterId</i>	Specifies a user-supplied identifier. This is the unique key that identifies a Cache Cluster. Type: String
<i>CacheClusterStatus</i>	Specifies the current state of this Cache Cluster. Type: String
<i>CacheNodeType</i>	Specifies the name of the compute and memory capacity node type for the Cache Cluster. Type: String
<i>CacheNodes</i>	Specifies the list of Cache Nodes the Cache Cluster contains. Type: CacheNode (p. 55) list
<i>CacheParameterGroup</i>	Provides the status of the Cache Parameter Group assigned to the Cache Cluster. Type: CacheParameterGroupStatus (p. 57)
<i>CacheSecurityGroups</i>	Provides the list of Cache Security Group elements containing <i>CacheSecurityGroup.Name</i> and <i>CacheSecurityGroup.Status</i> sub-elements. Type: CacheSecurityGroupMembership (p. 58) list

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Name	Description
Engine	Provides the name of the cache engine to be used for this Cache Cluster. Type: String
EngineVersion	Provides the cache engine version of the cache engine to be used for this Cache Cluster. Type: String
NotificationConfiguration	Specifies the notification details the Cache Cluster contains. Type: NotificationConfiguration (p. 62)
NumCacheNodes	Specifies the number of Cache Nodes the Cache Cluster contains. Type: Integer
PendingModifiedValues	Specifies that changes to the Cache Cluster are pending. This element is only included when changes are pending. Specific changes are identified by sub-elements. Type: PendingModifiedValues (p. 64)
PreferredAvailabilityZone	Specifies the name of the Availability Zone the Cache Cluster is located in. Type: String
PreferredMaintenanceWindow	Specifies the weekly time range (in UTC) during which system maintenance can occur. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors](#) (p. 68).

Error	Description	HTTP Status Code
CacheClusterNotFound	<i>CacheClusterId</i> does not refer to an existing Cache Cluster.	404
InvalidCacheClusterState	The specified Cache Cluster is not in the <i>available</i> state.	400
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/  
?Action=DeleteCacheCluster  
&CacheClusterId=simcoprod43&Version=2011-07-15  
&SignatureVersion=2  
&SignatureMethod=HmacSHA256  
&Timestamp=2011-07-27T02%3A46%3A46.129Z  
&AWSAccessKeyId=YOUR-ACCESS-KEY  
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<DeleteCacheClusterResponse xmlns="http://elasticache.amazonaws.com/doc/2011-  
07-15/">  
  <DeleteCacheClusterResult>  
    <CacheCluster>  
      <CacheParameterGroup>  
        <ParameterApplyStatus>in-sync</ParameterApplyStatus>  
        <CacheParameterGroupName>default.memcached1.4</CacheParameterGroupName>  
  
        <CacheNodeIdsToReboot/>  
      </CacheParameterGroup>  
      <CacheClusterId>simcoprod43</CacheClusterId>  
      <CacheClusterStatus>deleting</CacheClusterStatus>  
      <CacheNodeType>cache.m1.large</CacheNodeType>  
      <Engine>memcached</Engine>  
      <PendingModifiedValues/>  
      <PreferredAvailabilityZone>us-east-1b</PreferredAvailabilityZone>  
      <CacheClusterCreateTime>2011-07-27T02:18:26.497Z</CacheClusterCreateTime>  
  
      <EngineVersion>1.4.5</EngineVersion>  
      <AutoMinorVersionUpgrade>true</AutoMinorVersionUpgrade>  
      <PreferredMaintenanceWindow>mon:05:00-  
mon:05:30</PreferredMaintenanceWindow>  
      <CacheSecurityGroups>  
        <CacheSecurityGroup>  
          <CacheSecurityGroupName>default</CacheSecurityGroupName>  
          <Status>active</Status>  
        </CacheSecurityGroup>  
      </CacheSecurityGroups>  
      <NumCacheNodes>3</NumCacheNodes>  
    </CacheCluster>  
  </DeleteCacheClusterResult>  
  <ResponseMetadata>  
    <RequestId>ab84aa7e-b7fa-11e0-9b0b-a9261be2b354</RequestId>  
  </ResponseMetadata>  
</DeleteCacheClusterResponse>
```


DeleteCacheParameterGroup

Description

Deletes the specified CacheParameterGroup. The CacheParameterGroup cannot be deleted if it is associated with any cache clusters.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheParameterGroupName</i>	<p>The name of the Cache Parameter Group to delete.</p> <p> Note</p> <p>The specified cache security group must not be associated with any Cache clusters.</p> <p>Type: String</p>	Yes

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
CacheParameterGroupNotFound	<i>CacheParameterGroupName</i> does not refer to an existing Cache Parameter Group.	404
InvalidCacheParameterGroupState	The state of the Cache Parameter Group does not allow for the requested action to occur.	400
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
?Action=DeleteCacheParameterGroup
&CacheParameterGroupName=myparametergroup
&Version=2011-07-15
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2011-07-25T21%3A16%3A39.166Z
```

```
&AWSAccessKeyId=YOUR-ACCESS-KEY  
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<DeleteCacheParameterGroupResponse  
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">  
  <ResponseMetadata>  
    <RequestId>d0a417cb-575b-11e0-8869-cd22b4f9d96f</RequestId>  
  </ResponseMetadata>  
</DeleteCacheParameterGroupResponse>
```

DeleteCacheSecurityGroup

Description

Deletes a Cache Security Group.



Note

The specified Cache Security Group must not be associated with any Cache Clusters.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheSecurityGroupName</i>	The name of the Cache Security Group to delete. Note You cannot delete the default security group. Type: String	Yes

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
CacheSecurityGroupNotFound	<i>CacheSecurityGroupName</i> does not refer to an existing Cache Security Group.	404
InvalidCacheSecurityGroupState	The state of the Cache Security Group does not allow deletion.	400
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/  
?Action=DeleteCacheSecurityGroup  
&CacheSecurityGroupName=mycachesecuritygroup3  
&Version=2011-07-15
```



```
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2011-07-27T02%3A54%3A12.418Z
&AWSAccessKeyId=YOUR-ACCESS-KEY
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<DeleteCacheSecurityGroupResponse
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <ResponseMetadata>
    <RequestId>c130cfb7-3650-11e0-ae57-f96cfe56749c</RequestId>
  </ResponseMetadata>
</DeleteCacheSecurityGroupResponse>
```

DescribeCacheClusters

Description

Returns information about all provisioned Cache Clusters if no Cache Cluster identifier is specified, or about a specific Cache Cluster if a Cache Cluster identifier is supplied.

Cluster information will be returned by default. An optional *ShowDetails* flag can be used to retrieve detailed information about the Cache Nodes associated with the Cache Cluster. Details include the DNS address and port for the Cache Node endpoint.

If the cluster is in the CREATING state, only cluster level information will be displayed until all of the nodes are successfully provisioned.

If the cluster is in the DELETING state, only cluster level information will be displayed.

While adding Cache Nodes, node endpoint information and creation time for the additional nodes will not be displayed until they are completely provisioned. The cluster lifecycle tells the customer when new nodes are AVAILABLE.

While removing existing Cache Nodes from an cluster, endpoint information for the removed nodes will not be displayed.

DescribeCacheClusters supports pagination.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheClusterId</i>	The user-supplied cluster identifier. If this parameter is specified, only information about that specific Cache Cluster is returned. This parameter isn't case sensitive. Type: String	No
<i>Marker</i>	An optional marker provided in the previous DescribeCacheClusters request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by <i>MaxRecords</i> . Type: String	No
<i>MaxRecords</i>	The maximum number of records to include in the response. If more records exist than the specified <i>MaxRecords</i> value, a marker is included in the response so that the remaining results may be retrieved. Default: 100 Constraints: minimum 20, maximum 100 Type: Integer	No
<i>ShowCacheNodeInfo</i>	An optional flag that can be included in the DescribeCacheCluster request to retrieve Cache Nodes information. Type: Boolean	No

Response Elements

The following elements come wrapped in a `DescribeCacheClustersResult` structure.

Name	Description
CacheClusters	A list of CacheClusters. Type: CacheCluster (p. 54) list
Marker	The marker obtained from a previous operation response. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors](#) (p. 68).

Error	Description	HTTP Status Code
CacheClusterNotFound	<i>CacheClusterId</i> does not refer to an existing Cache Cluster.	404
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
  ?Action=DescribeCacheClusters
  &MaxRecords=100
  &Version=2011-07-15
  &ShowCacheNodeInfo=false
  &SignatureVersion=2
  &SignatureMethod=HmacSHA256
  &Timestamp=2011-07-27T02%3A55%3A54.654Z
  &AWSAccessKeyId=YOUR-ACCESS-KEY
  &Signature=YOUR-SIGNATURE
```

Sample Response

```
<DescribeCacheClustersResponse xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <DescribeCacheClustersResult>
    <CacheClusters>
      <CacheCluster>
        <CacheParameterGroup>
```

Amazon ElastiCache API Reference Examples

```
<ParameterApplyStatus>in-sync</ParameterApplyStatus>
<CacheParameterGroupName>default.memcached1.4</CacheParameterGroupName>

  <CacheNodeIdsToReboot/>
</CacheParameterGroup>
<CacheClusterId>simcoprod42</CacheClusterId>
<CacheClusterStatus>available</CacheClusterStatus>
<CacheNodeType>cache.m1.large</CacheNodeType>
<Engine>memcached</Engine>
<PendingModifiedValues/>
<PreferredAvailabilityZone>us-east-1d</PreferredAvailabilityZone>
<CacheClusterCreateTime>2011-07-26T01:21:46.607Z</CacheClusterCreateTime>

<EngineVersion>1.4.5</EngineVersion>
<AutoMinorVersionUpgrade>true</AutoMinorVersionUpgrade>
<PreferredMaintenanceWindow>fri:08:30-
fri:09:00</PreferredMaintenanceWindow>
<CacheSecurityGroups>
  <CacheSecurityGroup>
    <CacheSecurityGroupName>default</CacheSecurityGroupName>
    <Status>active</Status>
  </CacheSecurityGroup>
</CacheSecurityGroups>
<NotificationConfiguration>
  <TopicStatus>active</TopicStatus>
  <TopicArn>arn:aws:sns:us-east-
1:123456789012:ElastiCacheNotifications</TopicArn>
</NotificationConfiguration>
<NumCacheNodes>6</NumCacheNodes>
</CacheCluster>
</CacheClusters>
</DescribeCacheClustersResult>
<ResponseMetadata>
  <RequestId>f270d58f-b7fb-11e0-9326-b7275b9d4a6c</RequestId>
</ResponseMetadata>
</DescribeCacheClustersResponse>
```

DescribeCacheParameterGroups

Description

Returns a list of CacheParameterGroup descriptions. If a CacheParameterGroupName is specified, the list will contain only the descriptions of the specified CacheParameterGroup.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheParameterGroupName</i>	The name of a specific cache parameter group to return details for. Type: String	No
<i>Marker</i>	An optional marker provided in the previous DescribeCacheParameterGroups request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by <i>MaxRecords</i> . Type: String	No
<i>MaxRecords</i>	The maximum number of records to include in the response. If more records exist than the specified <i>MaxRecords</i> value, a marker is included in the response so that the remaining results may be retrieved. Type: Integer	No

Response Elements

The following elements come wrapped in a DescribeCacheParameterGroupsResult structure.

Name	Description
CacheParameterGroups	A list of CacheParameterGroup (p. 57) instances. Type: CacheParameterGroup (p. 57) list
Marker	The marker obtained from a previous operation response. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
CacheParameterGroupNotFound	<i>CacheParameterGroupName</i> does not refer to an existing Cache Parameter Group.	404

Error	Description	HTTP Status Code
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
?Action=DescribeCacheParameterGroups
&MaxRecords=100
&Version=2011-07-15
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2011-07-27T01%3A34%3A31.045Z
&AWSAccessKeyId=YOUR-ACCESS-KEY
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<DescribeCacheParameterGroupsResponse
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <DescribeCacheParameterGroupsResult>
    <CacheParameterGroups>
      <CacheParameterGroup>
        <CacheParameterGroupName>default.memcached1.4</CacheParameterGroupName>

        <CacheParameterGroupFamily>memcached1.4</CacheParameterGroupFamily>
        <Description>Default parameter group for memcached1.4</Description>
      </CacheParameterGroup>
      <CacheParameterGroup>
        <CacheParameterGroupName>default.mysql5.1</CacheParameterGroupName>
        <CacheParameterGroupFamily>mysql5.1</CacheParameterGroupFamily>
        <Description>Default parameter group for mysql5.1</Description>
      </CacheParameterGroup>
      <CacheParameterGroup>
        <CacheParameterGroupName>mycacheparametergroup</CacheParameterGroupName>

        <CacheParameterGroupFamily>memcached1.4</CacheParameterGroupFamily>
        <Description>My cache parameter group</Description>
      </CacheParameterGroup>
      <CacheParameterGroup>
        <CacheParameterGroupName>mycacheparametergroup1</CacheParameterGroupName>

        <CacheParameterGroupFamily>memcached1.4</CacheParameterGroupFamily>
        <Description>My first cache parameter group</Description>
      </CacheParameterGroup>
    </CacheParameterGroups>
  </DescribeCacheParameterGroupsResult>
</DescribeCacheParameterGroupsResponse>
```

Amazon ElastiCache API Reference Examples

```
<CacheParameterGroupName>mycacheparametergroup3</CacheParameterGroupName>

  <CacheParameterGroupFamily>memcached1.4</CacheParameterGroupFamily>
  <Description>My first cache parameter group</Description>
</CacheParameterGroup>
</CacheParameterGroups>
</DescribeCacheParameterGroupsResult>
<ResponseMetadata>
  <RequestId>7193fbb8-b7fc-11e0-9b0b-a9261be2b354</RequestId>
</ResponseMetadata>
</DescribeCacheParameterGroupsResponse>
```

DescribeCacheParameters

Description

Returns the detailed parameter list for a particular CacheParameterGroup.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheParameterGroupName</i>	The name of a specific cache parameter group to return details for. Type: String	Yes
<i>Marker</i>	An optional marker provided in the previous DescribeCacheClusters request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by <i>MaxRecords</i> . Type: String	No
<i>MaxRecords</i>	The maximum number of records to include in the response. If more records exist than the specified <i>MaxRecords</i> value, a marker is included in the response so that the remaining results may be retrieved. Type: Integer	No
<i>Source</i>	The parameter types to return. Valid values: <code>user</code> <code>system</code> <code>engine-default</code> Type: String	No

Response Elements

The following elements come wrapped in a `DescribeCacheParametersResult` structure.

Name	Description
<code>CacheNodeTypeSpecificParameters</code>	A list of CacheNodeTypeSpecificParameter (p. 56) instances. Type: CacheNodeTypeSpecificParameter (p. 56) list
<code>Marker</code>	The marker obtained from a previous operation response. Type: String
<code>Parameters</code>	A list of Parameter (p. 63) instances. Type: Parameter (p. 63) list

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

**Amazon ElastiCache API Reference
Errors**

Error	Description	HTTP Status Code
CacheParameterGroupNotFound	<i>CacheParameterGroupName</i> does not refer to an existing Cache Parameter Group.	404
InvalidParameterCombination		400
InvalidParameterValue		400

DescribeCacheSecurityGroups

Description

Returns a list of CacheSecurityGroup descriptions. If a CacheSecurityGroupName is specified, the list will contain only the description of the specified CacheSecurityGroup.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheSecurityGroupName</i>	The name of the Cache Security Group to return details for. Type: String	No
<i>Marker</i>	An optional marker provided in the previous DescribeCacheClusters request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by <i>MaxRecords</i> . Type: String	No
<i>MaxRecords</i>	The maximum number of records to include in the response. If more records exist than the specified <i>MaxRecords</i> value, a marker is included in the response so that the remaining results may be retrieved. Default: 100 Constraints: minimum 20, maximum 100 Type: Integer	No

Response Elements

The following elements come wrapped in a DescribeCacheSecurityGroupsResult structure.

Name	Description
CacheSecurityGroups	A list of CacheSecurityGroup (p. 58) instances. Type: CacheSecurityGroup (p. 58) list
Marker	The marker obtained from a previous operation response. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
CacheSecurityGroupNotFound	<i>CacheSecurityGroupName</i> does not refer to an existing Cache Security Group.	404
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
  ?Action=DescribeCacheSecurityGroups
  &Version=2011-07-15
  &MaxRecords=100
  &SignatureVersion=2
  &SignatureMethod=HmacSHA256
  &Timestamp=2011-07-27T01%3A22%3A48.381Z
  &AWSAccessKeyId=YOUR-ACCESS-KEY
  &Signature=YOUR-SIGNATURE
```

Sample Response

```
<DescribeCacheSecurityGroupsResponse
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <DescribeCacheSecurityGroupsResult>
    <CacheSecurityGroups>
      <CacheSecurityGroup>
        <EC2SecurityGroups/>
        <CacheSecurityGroupName>default</CacheSecurityGroupName>
        <OwnerId>123456789012</OwnerId>
        <Description>default</Description>
      </CacheSecurityGroup>
      <CacheSecurityGroup>
        <EC2SecurityGroups/>
        <CacheSecurityGroupName>mycachesecuritygroup</CacheSecurityGroupName>
        <OwnerId>123456789012</OwnerId>
        <Description>My Security Group</Description>
      </CacheSecurityGroup>
    </CacheSecurityGroups>
  </DescribeCacheSecurityGroupsResult>
  <ResponseMetadata>
    <RequestId>a95360ae-b7fc-11e0-9326-b7275b9d4a6c</RequestId>
  </ResponseMetadata>
</DescribeCacheSecurityGroupsResponse>
```


DescribeEngineDefaultParameters

Description

Returns the default engine and system parameter information for the specified cache engine.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheParameterGroupFamily</i>	<p>The name of the Cache Parameter Group Family.</p> <p> Note</p> <p>Currently, <i>memcached1.4</i> is the only cache parameter group family supported by the service.</p> <p>Type: String</p>	Yes
<i>Marker</i>	<p>An optional marker provided in the previous DescribeCacheClusters request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by <i>MaxRecords</i>.</p> <p>Type: String</p>	No
<i>MaxRecords</i>	<p>The maximum number of records to include in the response. If more records exist than the specified <i>MaxRecords</i> value, a marker is included in the response so that the remaining results may be retrieved.</p> <p>Type: Integer</p>	No

Response Elements

The following elements come wrapped in a `EngineDefaults` structure.

Name	Description
<i>CacheNodeTypeSpecificParameters</i>	<p>A list of CacheNodeTypeSpecificParameter (p. 56) instances.</p> <p>Type: CacheNodeTypeSpecificParameter (p. 56) list</p>
<i>CacheParameterGroupFamily</i>	<p>Specifies the name of the Cache Parameter Group Family which the engine default parameters apply to.</p> <p>Type: String</p>
<i>Marker</i>	<p>Provides an identifier to allow retrieval of paginated results.</p> <p>Type: String</p>

Name	Description
Parameters	Contains a list of engine default parameters. Type: Parameter (p. 63) list

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
?Action=DescribeEngineDefaultParameters
&CacheParameterGroupFamily=memcached1.4
&MaxRecords=100
&Version=2011-07-15
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2011-07-27T01%3A34%3A31.045Z
&AWSAccessKeyId=YOUR-ACCESS-KEY
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<DescribeEngineDefaultParametersResponse
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <DescribeEngineDefaultParametersResult>
    <EngineDefaults>
      <CacheParameterGroupFamily>memcached1.4</CacheParameterGroupFamily>
      <Parameters>
        <Parameter>
          <ParameterValue>1024</ParameterValue>
          <DataType>integer</DataType>
          <Source>system</Source>
          <IsModifiable>>false</IsModifiable>
          <Description>The backlog queue limit.</Description>
          <AllowedValues>1-10000</AllowedValues>
          <ParameterName>backlog_queue_limit</ParameterName>
          <MinimumEngineVersion>1.4.5</MinimumEngineVersion>
        </Parameter>
```

```
<Parameter>
  <ParameterValue>auto</ParameterValue>
  <DataType>string</DataType>
  <Source>system</Source>
  <IsModifiable>>false</IsModifiable>
  <Description>Binding protocol.</Description>
  <AllowedValues>auto,binary,ascii</AllowedValues>
  <ParameterName>binding_protocol</ParameterName>
  <MinimumEngineVersion>1.4.5</MinimumEngineVersion>
</Parameter>
<Parameter>
  <ParameterValue>0</ParameterValue>
  <DataType>boolean</DataType>
  <Source>system</Source>
  <IsModifiable>>false</IsModifiable>
  <Description>Try to use large memory pages.</Description>
  <AllowedValues>0,1</AllowedValues>
  <ParameterName>large_memory_pages</ParameterName>
  <MinimumEngineVersion>1.4.5</MinimumEngineVersion>

... EXAMPLE TRUNCATED FOR SPACE ...

</Parameter>
</Parameters>
<CacheNodeTypeSpecificParameters>
  <CacheNodeTypeSpecificParameter>
    <CacheNodeTypeSpecificValues>
      <CacheNodeTypeSpecificValue>
        <CacheNodeType>cache.c1.xlarge</CacheNodeType>
        <Value>6000</Value>
      </CacheNodeTypeSpecificValue>
      <CacheNodeTypeSpecificValue>
        <CacheNodeType>cache.m1.large</CacheNodeType>
        <Value>7100</Value>
      </CacheNodeTypeSpecificValue>
      <CacheNodeTypeSpecificValue>
        <CacheNodeType>cache.m1.small</CacheNodeType>
        <Value>1300</Value>
      </CacheNodeTypeSpecificValue>
      <CacheNodeTypeSpecificValue>
        <CacheNodeType>cache.m1.xlarge</CacheNodeType>
        <Value>14600</Value>
      </CacheNodeTypeSpecificValue>
      <CacheNodeTypeSpecificValue>
        <CacheNodeType>cache.m2.2xlarge</CacheNodeType>
        <Value>33800</Value>
      </CacheNodeTypeSpecificValue>
      <CacheNodeTypeSpecificValue>
        <CacheNodeType>cache.m2.4xlarge</CacheNodeType>
        <Value>68000</Value>
      </CacheNodeTypeSpecificValue>
      <CacheNodeTypeSpecificValue>
        <CacheNodeType>cache.m2.xlarge</CacheNodeType>
        <Value>16600</Value>
      </CacheNodeTypeSpecificValue>
    </CacheNodeTypeSpecificValues>
    <DataType>integer</DataType>
    <Source>system</Source>
```

Amazon ElastiCache API Reference Examples

```
<IsModifiable>>false</IsModifiable>
<Description>The maximum configurable amount of memory to use to store
items, in megabytes.</Description>
<AllowedValues>1-100000</AllowedValues>
<ParameterName>max_cache_memory</ParameterName>
<MinimumEngineVersion>1.4.5</MinimumEngineVersion>
</CacheNodeTypeSpecificParameter>
<CacheNodeTypeSpecificParameter>
  <CacheNodeTypeSpecificValues>
    <CacheNodeTypeSpecificValue>
      <CacheNodeType>cache.c1.xlarge</CacheNodeType>
      <Value>8</Value>
    </CacheNodeTypeSpecificValue>
    <CacheNodeTypeSpecificValue>
      <CacheNodeType>cache.m1.large</CacheNodeType>
      <Value>2</Value>
    </CacheNodeTypeSpecificValue>
    <CacheNodeTypeSpecificValue>
      <CacheNodeType>cache.m1.small</CacheNodeType>
      <Value>1</Value>
    </CacheNodeTypeSpecificValue>
    <CacheNodeTypeSpecificValue>
      <CacheNodeType>cache.m1.xlarge</CacheNodeType>
      <Value>4</Value>
    </CacheNodeTypeSpecificValue>
    <CacheNodeTypeSpecificValue>
      <CacheNodeType>cache.m2.2xlarge</CacheNodeType>
      <Value>4</Value>
    </CacheNodeTypeSpecificValue>
    <CacheNodeTypeSpecificValue>
      <CacheNodeType>cache.m2.4xlarge</CacheNodeType>
      <Value>8</Value>
    </CacheNodeTypeSpecificValue>
    <CacheNodeTypeSpecificValue>
      <CacheNodeType>cache.m2.xlarge</CacheNodeType>
      <Value>2</Value>
    </CacheNodeTypeSpecificValue>
  </CacheNodeTypeSpecificValues>
  <DataType>integer</DataType>
  <Source>system</Source>
  <IsModifiable>>false</IsModifiable>
  <Description>The number of memcached threads to use.</Description>
  <AllowedValues>1-8</AllowedValues>
  <ParameterName>num_threads</ParameterName>
  <MinimumEngineVersion>1.4.5</MinimumEngineVersion>
</CacheNodeTypeSpecificParameter>
</CacheNodeTypeSpecificParameters>
</EngineDefaults>
</DescribeEngineDefaultParametersResult>
<ResponseMetadata>
  <RequestId>061282fe-b7fd-11e0-9326-b7275b9d4a6c</RequestId>
</ResponseMetadata>
</DescribeEngineDefaultParametersResponse>
```

DescribeEvents

Description

Returns events related to Cache Clusters, Cache Security Groups, and Cache Parameter Groups for the past 14 days. Events specific to a particular Cache Cluster, Cache Security Group, or Cache Parameter Group can be obtained by providing the name as a parameter. By default, the past hour of events are returned.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>Duration</i>	The number of minutes to retrieve events for. Type: Integer	No
<i>EndTime</i>	The end of the time interval for which to retrieve events, specified in ISO 8601 format. Type: DateTime	No
<i>Marker</i>	An optional marker provided in the previous DescribeCacheClusters request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by <i>MaxRecords</i> . Type: String	No
<i>MaxRecords</i>	The maximum number of records to include in the response. If more records exist than the specified <i>MaxRecords</i> value, a marker is included in the response so that the remaining results may be retrieved. Type: Integer	No
<i>SourceIdentifier</i>	The identifier of the event source for which events will be returned. If not specified, then all sources are included in the response. Type: String	No
<i>SourceType</i>	The event source to retrieve events for. If no value is specified, all events are returned. Type: String Valid Values: <code>cache-cluster</code> <code>cache-parameter-group</code> <code>cache-security-group</code>	No
<i>StartTime</i>	The beginning of the time interval to retrieve events for, specified in ISO 8601 format. Type: DateTime	No

Response Elements

The following elements come wrapped in a `DescribeEventsResult` structure.

Name	Description
Events	A list of Event (p. 62) instances. Type: Event (p. 62) list
Marker	The marker obtained from a previous operation response. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
InvalidParameterCombination		400
InvalidParameterValue		400

ModifyCacheCluster

Description


Modifies the Cache Cluster settings. You can change one or more Cache Cluster configuration parameters by specifying the parameters and the new values in the request.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>ApplyImmediately</i>	<p>Specifies whether or not the modifications in this request and any pending modifications are asynchronously applied as soon as possible, regardless of the <i>PreferredMaintenanceWindow</i> setting for the Cache Cluster.</p> <p>If this parameter is passed as <i>false</i>, changes to the Cache Cluster are applied on the next maintenance reboot, or the next failure reboot, whichever occurs first.</p> <p>Default: <i>false</i> Type: Boolean</p>	No
<i>AutoMinorVersionUpgrade</i>	<p>Indicates that minor engine upgrades will be applied automatically to the Cache Cluster during the maintenance window.</p> <p>Default: <i>true</i> Type: Boolean</p>	No
<i>CacheClusterId</i>	<p>The Cache Cluster identifier. This value is stored as a lowercase string.</p> <p>Type: String</p>	Yes
<i>CacheNodeIdsToRemove.member.N</i>	<p>The list of Cache Node IDs to be removed. This parameter is only valid when <i>NumCacheNodes</i> is less than the existing number of Cache Nodes. The number of Cache Node IDs supplied in this parameter must match the difference between the existing number of Cache Nodes in the cluster and the new <i>NumCacheNodes</i> requested.</p> <p>Type: String list</p>	No

Amazon ElastiCache API Reference
Request Parameters

Name	Description	Required
<i>CacheParameterGroupName</i>	The name of the Cache Parameter Group to apply to this Cache Cluster. This change is asynchronously applied as soon as possible for parameters when the <i>ApplyImmediately</i> parameter is specified as <i>true</i> for this request. Type: String	No
<i>CacheSecurityGroupNames.member.N</i>	A list of Cache Security Group Names to authorize on this Cache Cluster. This change is asynchronously applied as soon as possible. Constraints: Must contain no more than 255 alphanumeric characters. Must not be "Default". Type: String list	No
<i>EngineVersion</i>	The version of the cache engine to upgrade this cluster to. Type: String	No
<i>NotificationTopicArn</i>	The Amazon Resource Name (ARN) of the SNS topic to which notifications will be sent.  Note The SNS topic owner must be same as the Cache Cluster owner. Type: String	No
<i>NotificationTopicStatus</i>	The status of the Amazon SNS notification topic. The value can be <i>active</i> or <i>inactive</i> . Notifications are sent only if the status is <i>active</i> . Type: String	No
<i>NumCacheNodes</i>	The number of Cache Nodes the Cache Cluster should have. If NumCacheNodes is greater than the existing number of Cache Nodes, Cache Nodes will be added. If NumCacheNodes is less than the existing number of Cache Nodes, Cache Nodes will be removed. When removing Cache Nodes, the Ids of the specific Cache Nodes to be removed must be supplied using the CacheNodeIdsToRemove parameter. Type: Integer	No

Name	Description	Required
<i>PreferredMaintenanceWindow</i>	The weekly time range (in UTC) during which system maintenance can occur, which may result in an outage. This change is made immediately. If moving this window to the current time, there must be at least 120 minutes between the current time and end of the window to ensure pending changes are applied. Type: String	No

Response Elements

The following elements come wrapped in a `CacheCluster` structure.

Name	Description
<code>AutoMinorVersionUpgrade</code>	Indicates that minor version patches are applied automatically. Type: Boolean
<code>CacheClusterCreateTime</code>	Provides the date and time the Cache Cluster was created. Type: DateTime
<code>CacheClusterId</code>	Specifies a user-supplied identifier. This is the unique key that identifies a Cache Cluster. Type: String
<code>CacheClusterStatus</code>	Specifies the current state of this Cache Cluster. Type: String
<code>CacheNodeType</code>	Specifies the name of the compute and memory capacity node type for the Cache Cluster. Type: String
<code>CacheNodes</code>	Specifies the list of Cache Nodes the Cache Cluster contains. Type: CacheNode (p. 55) list
<code>CacheParameterGroup</code>	Provides the status of the Cache Parameter Group assigned to the Cache Cluster. Type: CacheParameterGroupStatus (p. 57)
<code>CacheSecurityGroups</code>	Provides the list of Cache Security Group elements containing <i>CacheSecurityGroup.Name</i> and <i>CacheSecurityGroup.Status</i> sub-elements. Type: CacheSecurityGroupMembership (p. 58) list
<code>Engine</code>	Provides the name of the cache engine to be used for this Cache Cluster. Type: String
<code>EngineVersion</code>	Provides the cache engine version of the cache engine to be used for this Cache Cluster. Type: String

Name	Description
NotificationConfiguration	Specifies the notification details the Cache Cluster contains. Type: NotificationConfiguration (p. 62)
NumCacheNodes	Specifies the number of Cache Nodes the Cache Cluster contains. Type: Integer
PendingModifiedValues	Specifies that changes to the Cache Cluster are pending. This element is only included when changes are pending. Specific changes are identified by sub-elements. Type: PendingModifiedValues (p. 64)
PreferredAvailabilityZone	Specifies the name of the Availability Zone the Cache Cluster is located in. Type: String
PreferredMaintenanceWindow	Specifies the weekly time range (in UTC) during which system maintenance can occur. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors](#) (p. 68).

Error	Description	HTTP Status Code
CacheClusterNotFound	<i>CacheClusterId</i> does not refer to an existing Cache Cluster.	404
CacheParameterGroupNotFound	<i>CacheParameterGroupName</i> does not refer to an existing Cache Parameter Group.	404
CacheSecurityGroupNotFound	<i>CacheSecurityGroupName</i> does not refer to an existing Cache Security Group.	404
InvalidCacheClusterState	The specified Cache Cluster is not in the <i>available</i> state.	400
InvalidCacheSecurityGroupState	The state of the Cache Security Group does not allow deletion.	400
InvalidParameterCombination		400
InvalidParameterValue		400
NodeQuotaForClusterExceeded	Request would result in user exceeding the allowed number of Cache Nodes in a single Cache Cluster.	400
NodeQuotaForCustomerExceeded	Request would result in user exceeding the allowed number of Cache Nodes per customer.	400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/  
?Action=ModifyCacheCluster  
&NumCacheNodes=5  
&CacheClusterId=simcoprod01  
&Version=2011-07-15  
&ApplyImmediately=true  
&SignatureVersion=2  
&SignatureMethod=HmacSHA256  
&Timestamp=2011-07-27T03%3A16%3A34.601Z  
&AWSAccessKeyId=YOUR-ACCESS-KEY  
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<ModifyCacheClusterResponse xmlns="http://elasticache.amazonaws.com/doc/2011-  
07-15/">  
  <ModifyCacheClusterResult>  
    <CacheCluster>  
      <CacheParameterGroup>  
        <ParameterApplyStatus>in-sync</ParameterApplyStatus>  
        <CacheParameterGroupName>default.memcached1.4</CacheParameterGroupName>  
  
        <CacheNodeIdsToReboot/>  
      </CacheParameterGroup>  
      <CacheClusterId>simcoprod01</CacheClusterId>  
      <CacheClusterStatus>available</CacheClusterStatus>  
      <CacheNodeType>cache.m1.large</CacheNodeType>  
      <Engine>memcached</Engine>  
      <PendingModifiedValues>  
        <NumCacheNodes>5</NumCacheNodes>  
      </PendingModifiedValues>  
      <PreferredAvailabilityZone>us-east-1b</PreferredAvailabilityZone>  
      <CacheClusterCreateTime>2011-07-26T23:45:20.937Z</CacheClusterCreateTime>  
  
      <EngineVersion>1.4.5</EngineVersion>  
      <AutoMinorVersionUpgrade>true</AutoMinorVersionUpgrade>  
      <PreferredMaintenanceWindow>fri:04:30-  
fri:05:00</PreferredMaintenanceWindow>  
      <CacheSecurityGroups>  
        <CacheSecurityGroup>  
          <CacheSecurityGroupName>default</CacheSecurityGroupName>  
          <Status>active</Status>  
        </CacheSecurityGroup>  
      </CacheSecurityGroups>  
      <NumCacheNodes>3</NumCacheNodes>  
    </CacheCluster>  
  </ModifyCacheClusterResult>  
  <ResponseMetadata>  
    <RequestId>d5786c6d-b7fe-11e0-9326-b7275b9d4a6c</RequestId>
```

```
</ResponseMetadata>  
</ModifyCacheClusterResponse>
```

ModifyCacheParameterGroup

Description

Modifies the parameters of a CacheParameterGroup. To modify more than one parameter, submit a list of ParameterName and ParameterValue parameters. A maximum of 20 parameters can be modified in a single request.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheParameterGroupName</i>	The name of the cache parameter group to modify. Type: String	Yes
<i>ParameterNameValues.member.N</i>	An array of parameter names and values for the parameter update. At least one parameter name and value must be supplied; subsequent arguments are optional. A maximum of 20 parameters may be modified in a single request. Type: ParameterNameValue (p. 64) list	Yes

Response Elements

The following elements come wrapped in a `ModifyCacheParameterGroupResult` structure.

Name	Description
<code>CacheParameterGroupName</code>	The name of the Cache Parameter Group. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
<code>CacheParameterGroupNotFound</code>	<i>CacheParameterGroupName</i> does not refer to an existing Cache Parameter Group.	404
<code>InvalidCacheParameterGroupState</code>	The state of the Cache Parameter Group does not allow for the requested action to occur.	400
<code>InvalidParameterCombination</code>		400
<code>InvalidParameterValue</code>		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/  
?Action=ModifyCacheParameterGroup  
&ParameterNameValues.member.1.ParameterName=chunk_size_growth_factor  
&ParameterNameValues.member.1.ParameterValue=1.02  
&CacheParameterGroupName=mycacheparametergroup  
&Version=2011-07-15  
&SignatureVersion=2  
&SignatureMethod=HmacSHA256  
&Timestamp=2011-07-27T03%3A24%3A50.203Z  
&AWSAccessKeyId=YOUR-ACCESS-KEY  
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<ModifyCacheParameterGroupResponse  
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">  
  <ModifyCacheParameterGroupResult>  
    <CacheParameterGroupName>mycacheparametergroup</CacheParameterGroupName>  
  </ModifyCacheParameterGroupResult>  
  <ResponseMetadata>  
    <RequestId>fcdeef2-b7ff-11e0-9326-b7275b9d4a6c</RequestId>  
  </ResponseMetadata>  
</ModifyCacheParameterGroupResponse>
```

RebootCacheCluster

Description

Reboots some (or all) of the cache cluster nodes within a previously provisioned ElastiCache cluster. This API results in the application of modified CacheParameterGroup parameters to the cache cluster. This action is taken as soon as possible, and results in a momentary outage to the cache cluster during which the cache cluster status is set to rebooting. During that momentary outage, the contents of the cache (for each cache cluster node being rebooted) are lost. A CacheCluster event is created when the reboot is completed.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheClusterId</i>	The Cache Cluster identifier. This parameter is stored as a lowercase string. Type: String	Yes
<i>CacheNodeIdsToReboot.member.N</i>	A list of Cache Cluster Node Ids to reboot. To reboot an entire cache cluster, specify all cache cluster node Ids. Type: String list	Yes

Response Elements

The following elements come wrapped in a `CacheCluster` structure.

Name	Description
<i>AutoMinorVersionUpgrade</i>	Indicates that minor version patches are applied automatically. Type: Boolean
<i>CacheClusterCreateTime</i>	Provides the date and time the Cache Cluster was created. Type: DateTime
<i>CacheClusterId</i>	Specifies a user-supplied identifier. This is the unique key that identifies a Cache Cluster. Type: String
<i>CacheClusterStatus</i>	Specifies the current state of this Cache Cluster. Type: String
<i>CacheNodeType</i>	Specifies the name of the compute and memory capacity node type for the Cache Cluster. Type: String
<i>CacheNodes</i>	Specifies the list of Cache Nodes the Cache Cluster contains. Type: CacheNode (p. 55) list

Name	Description
CacheParameterGroup	Provides the status of the Cache Parameter Group assigned to the Cache Cluster. Type: CacheParameterGroupStatus (p. 57)
CacheSecurityGroups	Provides the list of Cache Security Group elements containing <i>CacheSecurityGroup.Name</i> and <i>CacheSecurityGroup.Status</i> sub-elements. Type: CacheSecurityGroupMembership (p. 58) list
Engine	Provides the name of the cache engine to be used for this Cache Cluster. Type: String
EngineVersion	Provides the cache engine version of the cache engine to be used for this Cache Cluster. Type: String
NotificationConfiguration	Specifies the notification details the Cache Cluster contains. Type: NotificationConfiguration (p. 62)
NumCacheNodes	Specifies the number of Cache Nodes the Cache Cluster contains. Type: Integer
PendingModifiedValues	Specifies that changes to the Cache Cluster are pending. This element is only included when changes are pending. Specific changes are identified by sub-elements. Type: PendingModifiedValues (p. 64)
PreferredAvailabilityZone	Specifies the name of the Availability Zone the Cache Cluster is located in. Type: String
PreferredMaintenanceWindow	Specifies the weekly time range (in UTC) during which system maintenance can occur. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors](#) (p. 68).

Error	Description	HTTP Status Code
CacheClusterNotFound	<i>CacheClusterId</i> does not refer to an existing Cache Cluster.	404
InvalidCacheClusterState	The specified Cache Cluster is not in the <i>available</i> state.	400

ResetCacheParameterGroup

Description

Modifies the parameters of a CacheParameterGroup to the engine or system default value. To reset specific parameters submit a list of the parameter names. To reset the entire CacheParameterGroup, specify the CacheParameterGroup name and ResetAllParameters parameters.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheParameterGroupName</i>	The name of the Cache Parameter Group. Type: String	Yes
<i>ParameterNameValues.member.N</i>	An array of parameter names which should be reset. If not resetting the entire CacheParameterGroup, at least one parameter name must be supplied. Type: ParameterNameValue (p. 64) list	Yes
<i>ResetAllParameters</i>	Specifies whether (<i>true</i>) or not (<i>false</i>) to reset all parameters in the Cache Parameter Group to default values. Type: Boolean	No

Response Elements

The following elements come wrapped in a `ResetCacheParameterGroupResult` structure.

Name	Description
<code>CacheParameterGroupName</code>	The name of the Cache Parameter Group. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
<code>CacheParameterGroupNotFound</code>	<i>CacheParameterGroupName</i> does not refer to an existing Cache Parameter Group.	404
<code>InvalidCacheParameterGroupState</code>	The state of the Cache Parameter Group does not allow for the requested action to occur.	400
<code>InvalidParameterCombination</code>		400
<code>InvalidParameterValue</code>		400

RevokeCacheSecurityGroupIngress

Description

Revokes ingress from a CacheSecurityGroup for previously authorized EC2 Security Groups.

Request Parameters

For information about the common parameters that all actions use, see [Common Query Parameters \(p. 66\)](#).

Name	Description	Required
<i>CacheSecurityGroupName</i>	The name of the Cache Security Group to revoke ingress from. Type: String	Yes
<i>EC2SecurityGroupName</i>	The name of the EC2 Security Group to revoke access from. Type: String	Yes
<i>EC2SecurityGroupOwnerId</i>	The AWS Account Number of the owner of the security group specified in the <i>EC2SecurityGroupName</i> parameter. The AWS Access Key ID is not an acceptable value. Type: String	Yes

Response Elements

The following elements come wrapped in a CacheSecurityGroup structure.

Name	Description
CacheSecurityGroupName	Specifies the name of the Cache Security Group. Type: String
Description	Provides the description of the Cache Security Group. Type: String
EC2SecurityGroups	Contains a list of EC2SecurityGroup (p. 60) elements. Type: EC2SecurityGroup (p. 60) list
OwnerId	Provides the AWS ID of the owner of a specific Cache Security Group. Type: String

Errors

For information about the common errors that all actions use, see [Common Errors \(p. 68\)](#).

Error	Description	HTTP Status Code
AuthorizationNotFound	Specified EC2 Security Group is not authorized for the specified Cache Security Group.	404
CacheSecurityGroupNotFound	<i>CacheSecurityGroupName</i> does not refer to an existing Cache Security Group.	404
InvalidCacheSecurityGroupState	The state of the Cache Security Group does not allow deletion.	400
InvalidParameterCombination		400
InvalidParameterValue		400

Examples

Sample Request

```
https://elasticache.us-east-1.amazonaws.com/
?Action=RevokeCacheSecurityGroupIngress
&EC2SecurityGroupName=default
&CacheSecurityGroupName=mygroup
&EC2SecurityGroupOwnerId=1234-5678-1234
&Version=2011-07-15
&SignatureVersion=2
&SignatureMethod=HmacSHA256
&Timestamp=2011-07-27T02%3A30%3A08.444Z
&AWSAccessKeyId=YOUR-ACCESS-KEY
&Signature=YOUR-SIGNATURE
```

Sample Response

```
<RevokeCacheSecurityGroupIngressResponse
xmlns="http://elasticache.amazonaws.com/doc/2011-07-15/">
  <RevokeCacheSecurityGroupIngressResult>
    <CacheSecurityGroup>
      <EC2SecurityGroups>
        <EC2SecurityGroup>
          <Status>revoking</Status>
          <EC2SecurityGroupName>default</EC2SecurityGroupName>
        </EC2SecurityGroup>
      </EC2SecurityGroups>
    <EC2SecurityGroupOwnerId>123456781234</EC2SecurityGroupOwnerId>
    <CacheSecurityGroupName>mygroup</CacheSecurityGroupName>
    <OwnerId>123456789012</OwnerId>
    <Description>My security group</Description>
  </CacheSecurityGroup>
</RevokeCacheSecurityGroupIngressResult>
```

Amazon ElastiCache API Reference Examples

```
<ResponseMetadata>  
  <RequestId>02ae3699-3650-11e0-a564-8f11342c56b0</RequestId>  
</ResponseMetadata>  
</RevokeCacheSecurityGroupIngressResponse>
```

Data Types

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

**Note**

The order of each element in the response is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [CacheCluster](#) (p. 54)
- [CacheNode](#) (p. 55)
- [CacheNodeTypeSpecificParameter](#) (p. 56)
- [CacheNodeTypeSpecificValue](#) (p. 56)
- [CacheParameterGroup](#) (p. 57)
- [CacheParameterGroupStatus](#) (p. 57)
- [CacheSecurityGroup](#) (p. 58)
- [CacheSecurityGroupMembership](#) (p. 58)
- [DescribeCacheClustersResult](#) (p. 58)
- [DescribeCacheParameterGroupsResult](#) (p. 59)
- [DescribeCacheParametersResult](#) (p. 59)
- [DescribeCacheSecurityGroupsResult](#) (p. 60)
- [DescribeEventsResult](#) (p. 60)
- [EC2SecurityGroup](#) (p. 60)
- [Endpoint](#) (p. 61)
- [EngineDefaults](#) (p. 61)
- [Event](#) (p. 62)
- [ModifyCacheParameterGroupResult](#) (p. 62)
- [NotificationConfiguration](#) (p. 62)
- [Parameter](#) (p. 63)

- [ParameterNameValue](#) (p. 64)
- [PendingModifiedValues](#) (p. 64)
- [ResetCacheParameterGroupResult](#) (p. 64)

CacheCluster

Description

Contains information about a Cache Cluster.

Contents

Name	Description
AutoMinorVersionUpgrade	Indicates that minor version patches are applied automatically. Type: Boolean
CacheClusterCreateTime	Provides the date and time the Cache Cluster was created. Type: DateTime
CacheClusterId	Specifies a user-supplied identifier. This is the unique key that identifies a Cache Cluster. Type: String
CacheClusterStatus	Specifies the current state of this Cache Cluster. Type: String
CacheNodeType	Specifies the name of the compute and memory capacity node type for the Cache Cluster. Type: String
CacheNodes	Specifies the list of Cache Nodes the Cache Cluster contains. Type: CacheNode (p. 55) list
CacheParameterGroup	Provides the status of the Cache Parameter Group assigned to the Cache Cluster. Type: CacheParameterGroupStatus (p. 57)
CacheSecurityGroups	Provides the list of Cache Security Group elements containing <i>CacheSecurityGroup.Name</i> and <i>CacheSecurityGroup.Status</i> sub-elements. Type: CacheSecurityGroupMembership (p. 58) list
Engine	Provides the name of the cache engine to be used for this Cache Cluster. Type: String
EngineVersion	Provides the cache engine version of the cache engine to be used for this Cache Cluster. Type: String

Name	Description
NotificationConfiguration	Specifies the notification details the Cache Cluster contains. Type: NotificationConfiguration (p. 62)
NumCacheNodes	Specifies the number of Cache Nodes the Cache Cluster contains. Type: Integer
PendingModifiedValues	Specifies that changes to the Cache Cluster are pending. This element is only included when changes are pending. Specific changes are identified by sub-elements. Type: PendingModifiedValues (p. 64)
PreferredAvailabilityZone	Specifies the name of the Availability Zone the Cache Cluster is located in. Type: String
PreferredMaintenanceWindow	Specifies the weekly time range (in UTC) during which system maintenance can occur. Type: String

CacheNode

Description

A Cache Cluster is made up of one or more Cache Nodes. Each Cache Node is an separate endpoint servicing the memcached protocol.

Contents

Name	Description
CacheNodeCreateTime	Provides the date and time the Cache Node was created. Type: DateTime
CacheNodeId	Specifies a Cache Node identifier. This is the unique key that identifies a Cache Node per Customer (AWS account). Type: String
CacheNodeStatus	Specifies the current state of this Cache Node. Type: String
Endpoint	Specifies the endpoint details for a Cache Node. Type: Endpoint (p. 61)
ParameterGroupStatus	Specified the status of teh parameter group applied to this Cache Node. Type: String

CacheNodeTypeSpecificParameter

Description

A parameter that has a different value for each Cache Node Type it is applied to.

Contents

Name	Description
AllowedValues	Specifies the valid range of values for the parameter. Type: String
CacheNodeTypeSpecificValues	A list of Cache Node types and their corresponding values for this parameter. Type: CacheNodeTypeSpecificValue (p. 56) list
DataType	Specifies the valid data type for the parameter. Type: String
Description	Provides a description of the parameter. Type: String
IsModifiable	Indicates whether (<code>true</code>) or not (<code>false</code>) the parameter can be modified. Some parameters have security or operational implications that prevent them from being changed. Type: Boolean
MinimumEngineVersion	The earliest engine version to which the parameter can apply. Type: String
ParameterName	Specifies the name of the parameter. Type: String
Source	Indicates the source of the parameter value. Type: String

CacheNodeTypeSpecificValue

Description

A value that applies only to a certain Cache Node Type.

Contents

Name	Description
CacheNodeType	Specifies the Cache Node type for which this value applies. Type: String

Name	Description
Value	Specifies the value for the Cache Node type. Type: String

CacheParameterGroup

Description

Contains a set of parameters and their values which can be applied to a Cache Cluster.

Contents

Name	Description
CacheParameterGroupFamily	Provides the name of the Cache Parameter Group Family that this Cache Parameter Group is compatible with. Type: String
CacheParameterGroupName	Provides the name of the Cache Parameter Group. Type: String
Description	Provides the customer-specified description for this Cache Parameter Group. Type: String

CacheParameterGroupStatus

Description

The status of the Cache Parameter Group.

Contents

Name	Description
CacheNodeIdsToReboots	A list of the Cache Node Ids which need to be rebooted for parameter changes to be applied. Type: String list
CacheParameterGroupName	The name of the Cache Parameter Group. Type: String
ParameterApplyStatus	The status of parameter updates. Type: String

CacheSecurityGroup

Description

Defines a set of EC2 Security groups that are allowed to access a Cache Cluster.

Contents

Name	Description
CacheSecurityGroupName	Specifies the name of the Cache Security Group. Type: String
Description	Provides the description of the Cache Security Group. Type: String
EC2SecurityGroups	Contains a list of EC2SecurityGroup (p. 60) elements. Type: EC2SecurityGroup (p. 60) list
OwnerId	Provides the AWS ID of the owner of a specific Cache Security Group. Type: String

CacheSecurityGroupMembership

Description

Links a CacheCluster to one or more CacheSecurityGroups.

Contents

Name	Description
CacheSecurityGroupName	The name of the Cache Security Group. Type: String
Status	The status of the CacheSecurityGroupMembership, the status changes either when a CacheSecurityGroup is modified, or when the CacheSecurityGroups assigned to a Cache Cluster are modified. Type: String

DescribeCacheClustersResult

Description

Contains one or more Cache Clusters.

Contents

Name	Description
CacheClusters	A list of CacheClusters. Type: CacheCluster (p. 54) list
Marker	The marker obtained from a previous operation response. Type: String

DescribeCacheParameterGroupsResult

Description

Contains a list of CacheParameterGroups.

Contents

Name	Description
CacheParameterGroups	A list of CacheParameterGroup (p. 57) instances. Type: CacheParameterGroup (p. 57) list
Marker	The marker obtained from a previous operation response. Type: String

DescribeCacheParametersResult

Description

Contains a list of Parameters and CacheNodeTypeSpecificParameters.

Contents

Name	Description
CacheNodeTypeSpecificParameters	A list of CacheNodeTypeSpecificParameter (p. 56) instances. Type: CacheNodeTypeSpecificParameter (p. 56) list
Marker	The marker obtained from a previous operation response. Type: String
Parameters	A list of Parameter (p. 63) instances. Type: Parameter (p. 63) list

DescribeCacheSecurityGroupsResult

Description

Contains a list of CacheSecurityGroups.

Contents

Name	Description
CacheSecurityGroups	A list of CacheSecurityGroup (p. 58) instances. Type: CacheSecurityGroup (p. 58) list
Marker	The marker obtained from a previous operation response. Type: String

DescribeEventsResult

Description

Contains a list of Events.

Contents

Name	Description
Events	A list of Event (p. 62) instances. Type: Event (p. 62) list
Marker	The marker obtained from a previous operation response. Type: String

EC2SecurityGroup

Description

Specifies the current state of this Cache Node.

Contents

Name	Description
EC2SecurityGroupName	Specifies the name of the EC2 Security Group. Type: String

Name	Description
<code>EC2SecurityGroupOwnerId</code>	Specifies the AWS ID of the owner of the EC2 Security Group specified in the <code>EC2SecurityGroupName</code> field. Type: String
<code>Status</code>	Provides the status of the EC2 Security Group. Type: String

Endpoint

Description

An endpoint completely specifies enough information to connect to a Cache Node.

Contents

Name	Description
<code>Address</code>	Specifies the DNS address of the Cache Node. Type: String
<code>Port</code>	Specifies the port that the cache engine is listening on. Type: Integer

EngineDefaults

Description

The default Parameters and `CacheNodeTypeSpecificParameters` for a `CacheParameterGroupFamily`.

Contents

Name	Description
<code>CacheNodeTypeSpecificParameters</code>	A list of CacheNodeTypeSpecificParameter (p. 56) instances. Type: CacheNodeTypeSpecificParameter (p. 56) list
<code>CacheParameterGroupFamily</code>	Specifies the name of the Cache Parameter Group Family which the engine default parameters apply to. Type: String
<code>Marker</code>	Provides an identifier to allow retrieval of paginated results. Type: String
<code>Parameters</code>	Contains a list of engine default parameters. Type: Parameter (p. 63) list

Event

Description

An event represents something interesting that has happened in the system.

Contents

Name	Description
Date	Specifies the date and time of the event. Type: DateTime
Message	Provides the text of this event. Type: String
SourceIdentifier	Provides the identifier for the source of the event. Type: String
SourceType	Specifies the source type for this event. Type: String Valid Values: <code>cache-cluster</code> <code>cache-parameter-group</code> <code>cache-security-group</code>

ModifyCacheParameterGroupResult

Description

Contains the name of a Cache Parameter Group.

Contents

Name	Description
CacheParameterGroupName	The name of the Cache Parameter Group. Type: String

NotificationConfiguration

Description

Contains pair of Topic and Topic Status.

Contents

Name	Description
TopicArn	Specifies the topic Amazon Resource Name (ARN), identifying this resource. Type: String
TopicStatus	Specifies the current state of this topic. Type: String

Parameter

Description

A setting controlling some aspect of the service's behavior.

Contents

Name	Description
AllowedValues	Specifies the valid range of values for the parameter. Type: String
DataType	Specifies the valid data type for the parameter. Type: String
Description	Provides a description of the parameter. Type: String
IsModifiable	Indicates whether (<code>true</code>) or not (<code>false</code>) the parameter can be modified. Some parameters have security or operational implications that prevent them from being changed. Type: Boolean
MinimumEngineVersion	The earliest engine version to which the parameter can apply. Type: String
ParameterName	Specifies the name of the parameter. Type: String
ParameterValue	Specifies the value of the parameter. Type: String
Source	Indicates the source of the parameter value. Type: String

ParameterNameValue

Description

A name and value pair used to update the value of a Parameter.

Contents

Name	Description
ParameterName	Specifies the name of the parameter. Type: String
ParameterValue	Specifies the value of the parameter. Type: String

PendingModifiedValues

Description

Contains values that will be applied to the Cache Cluster in the future.

Contents

Name	Description
CacheNodeIdsToRemove	Contains the list of node Ids to remove from the Cache Cluster that will be applied or is in progress. Type: String list
EngineVersion	Contains the new version of the Cache Engine the Cache Cluster will be upgraded to. Type: String
NumCacheNodes	Contains the new <i>NumCacheNodes</i> for the Cache Cluster that will be applied or is in progress. Type: Integer

ResetCacheParameterGroupResult

Description

Contains the name of a Cache Parameter Group.

Contents

Name	Description
CacheParameterGroupName	The name of the Cache Parameter Group. Type: String

Common Query Parameters

This section lists the request parameters that all actions use. Any action-specific parameters are listed in the topic for the action.

Parameter Name	Description	Required
<i>Action</i>	The action to perform. Default: None Type: String	Yes
<i>AuthParams</i>	The parameters required to authenticate a query request. Contains: AWSAccessKeyId SignatureVersion Timestamp Signature Default: None	Conditional
<i>AWSAccessKeyId</i>	The Access Key ID corresponding to the AWS Secret Access Key you used to sign the request. Default: None Type: String	Yes
<i>Expires</i>	The date and time at which the request signature expires, in the format YYYY-MM-DDThh:mm:ssZ, as specified in the ISO 8601 standard. Condition: Requests must include either <i>Timestamp</i> or <i>Expires</i> , but not both. Default: None Type: String	Conditional

Parameter Name	Description	Required
<i>Signature</i>	The digital signature you created for the request. Refer to the service's developer documentation for information about how to generate the signature. Default: None Type: String	Yes
<i>SignatureMethod</i>	The hash algorithm you used to create the request signature. Default: None Valid Values: HmacSHA256 HmacSHA1. Type: String	Yes
<i>SignatureVersion</i>	The signature version you use to sign the request. Set this value to 2. Default: None Valid Value: 2 Type: String	Yes
<i>Timestamp</i>	The date and time the request was signed, in the format YYYY-MM-DDThh:mm:ssZ, as specified in the ISO 8601 standard. Condition: Requests must include either <i>Timestamp</i> or <i>Expires</i> , but not both. Default: None Type: String	Conditional
<i>Version</i>	The API version to use, in the format YYYY-MM-DD. Default: None Type: String	Yes

Common Errors

This section lists the common errors that all actions return. Any action-specific errors are listed in the topic for the action.

Error	Description	HTTP Status Code
IncompleteSignature	The request signature does not conform to AWS standards.	400
InternalFailure	The request processing has failed due to some unknown error, exception or failure.	500
InvalidAction	The action or operation requested is invalid.	400
InvalidClientTokenId	The X.509 certificate or AWS Access Key ID provided does not exist in our records.	403
InvalidParameterCombination	Parameters that must not be used together were used together.	400
InvalidParameterValue	A bad or out-of-range value was supplied for the input parameter.	400
InvalidQueryParameter	AWS query string is malformed, does not adhere to AWS standards.	400
MalformedQueryString	The query string is malformed.	404
MissingAction	The request is missing an action or operation parameter.	400
MissingAuthenticationToken	Request must contain either a valid (registered) AWS Access Key ID or X.509 certificate.	403
MissingParameter	An input parameter that is mandatory for processing the request is not supplied.	400

Error	Description	HTTP Status Code
OptInRequired	The AWS Access Key ID needs a subscription for the service.	403
RequestExpired	Request is past expires date or the request date (either with 15 minute padding), or the request date occurs more than 15 minutes in the future.	400
ServiceUnavailable	The request has failed due to a temporary failure of the server.	503
Throttling	Request was denied due to request throttling.	400