# Amazon EC2 Auto Scaling

## API Reference

## API Version 2011-01-01

# Amazon EC2 Auto Scaling: API Reference

# Table of Contents

# Welcome

Amazon EC2 Auto Scaling is designed to automatically launch or terminate EC2 instances based on user-defined scaling policies, scheduled actions, and health checks. Use this service with AWS Auto Scaling, Amazon CloudWatch, and Elastic Load Balancing.

For more information, including information about granting IAM users required permissions for Amazon EC2 Auto Scaling actions, see the Amazon EC2 Auto Scaling User Guide.

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# Actions

The following actions are supported:

# AttachInstances

Attaches one or more EC2 instances to the specified Auto Scaling group.

When you attach instances, Amazon EC2 Auto Scaling increases the desired capacity of the group by the number of instances being attached. If the number of instances being attached plus the desired capacity of the group exceeds the maximum size of the group, the operation fails.

If there is a Classic Load Balancer attached to your Auto Scaling group, the instances are also registered with the load balancer. If there are target groups attached to your Auto Scaling group, the instances are also registered with the target groups.

For more information, see Attach EC2 Instances to Your Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceIds.member.N**

The IDs of the instances. You can specify up to 20 instances.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=AttachInstances
&AutoScalingGroupName=my-asg
&InstanceIds.member.1=i-12345678
&Version=2011-01-01
&AUTHPARAMS
```

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

# AttachLoadBalancers

Attaches one or more Classic Load Balancers to the specified Auto Scaling group.

To attach an Application Load Balancer or a Network Load Balancer instead, see AttachLoadBalancerTargetGroups (p. 10).

To describe the load balancers for an Auto Scaling group, use DescribeLoadBalancers (p. 67). To detach the load balancer from the Auto Scaling group, use DetachLoadBalancers (p. 97).

For more information, see Attaching a Load Balancer to Your Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**LoadBalancerNames.member.N**

The names of the load balancers. You can specify up to 10 load balancers.

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=AttachLoadBalancers
&AutoScalingGroupName=my-asg
&LoadBalancerNames.member.1=my-lb
&Version=2011-01-01
&AUTHPARAMS
```

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

# AttachLoadBalancerTargetGroups

Attaches one or more target groups to the specified Auto Scaling group.

To describe the target groups for an Auto Scaling group, use DescribeLoadBalancerTargetGroups (p. 70). To detach the target group from the Auto Scaling group, use DetachLoadBalancerTargetGroups (p. 99).

With Application Load Balancers and Network Load Balancers, instances are registered as targets with a target group. With Classic Load Balancers, instances are registered with the load balancer. For more information, see Attaching a Load Balancer to Your Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**TargetGroupARNs.member.N**

The Amazon Resource Names (ARN) of the target groups. You can specify up to 10 target groups.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 511.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

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

# BatchDeleteScheduledAction

Deletes one or more scheduled actions for the specified Auto Scaling group.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ScheduledActionNames.member.N**

The names of the scheduled actions to delete. The maximum number allowed is 50.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Response Elements

The following element is returned by the service.

**FailedScheduledActions.member.N**

The names of the scheduled actions that could not be deleted, including an error message.

Type: Array of FailedScheduledUpdateGroupActionRequest (p. 167) objects

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

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

# BatchPutScheduledUpdateGroupAction

Creates or updates one or more scheduled scaling actions for an Auto Scaling group. If you leave a parameter unspecified when updating a scheduled scaling action, the corresponding value remains unchanged.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ScheduledUpdateGroupActions.member.N**

One or more scheduled actions. The maximum number allowed is 50.

Type: Array of ScheduledUpdateGroupActionRequest (p. 203) objects

Required: Yes

## Response Elements

The following element is returned by the service.

**FailedScheduledUpdateGroupActions.member.N**

The names of the scheduled actions that could not be created or updated, including an error message.

Type: Array of FailedScheduledUpdateGroupActionRequest (p. 167) objects

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**AlreadyExists**

You already have an Auto Scaling group or launch configuration with this name.

HTTP Status Code: 400

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

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

# CompleteLifecycleAction

Completes the lifecycle action for the specified token or instance with the specified result.

This step is a part of the procedure for adding a lifecycle hook to an Auto Scaling group:

1. (Optional) Create a Lambda function and a rule that allows CloudWatch Events to invoke your Lambda function when Amazon EC2 Auto Scaling launches or terminates instances.
2. (Optional) Create a notification target and an IAM role. The target can be either an Amazon SQS queue or an Amazon SNS topic. The role allows Amazon EC2 Auto Scaling to publish lifecycle notifications to the target.
3. Create the lifecycle hook. Specify whether the hook is used when the instances launch or terminate.
4. If you need more time, record the lifecycle action heartbeat to keep the instance in a pending state.
5. **If you finish before the timeout period ends, complete the lifecycle action.**

For more information, see Amazon EC2 Auto Scaling Lifecycle Hooks in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceId**

The ID of the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LifecycleActionResult**

The action for the group to take. This parameter can be either `CONTINUE` or `ABANDON`.

Type: String

Required: Yes

**LifecycleActionToken**

A universally unique identifier (UUID) that identifies a specific lifecycle action associated with an instance. Amazon EC2 Auto Scaling sends this token to the notification target you specified when you created the lifecycle hook.

Type: String

Length Constraints: Fixed length of 36.

Required: No

**LifecycleHookName**

The name of the lifecycle hook.

Type: String

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

Pattern: `[A-Za-z0-9\-_\/]+`

Required: Yes

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=CompleteLifecycleAction
&AutoScalingGroupName=my-asg
&LifecycleHookName=my-launch-hook
&LifecycleActionResult=CONTINUE
&LifecycleActionToken=bcd2f1b8-9a78-44d3-8a7a-4dd07EXAMPLE
&Version=2011-01-01
&AUTHPARAMS
```

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

- AWS SDK for Ruby V2

# CreateAutoScalingGroup

Creates an Auto Scaling group with the specified name and attributes.

If you exceed your maximum limit of Auto Scaling groups, the call fails. For information about viewing this limit, see DescribeAccountLimits (p. 48). For information about updating this limit, see Amazon EC2 Auto Scaling Limits in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group. This name must be unique per Region per account.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**AvailabilityZones.member.N**

One or more Availability Zones for the group. This parameter is optional if you specify one or more subnets for `VPCZoneIdentifier`.

Conditional: If your account supports EC2-Classic and VPC, this parameter is required to launch instances into EC2-Classic.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**DefaultCooldown**

The amount of time, in seconds, after a scaling activity completes before another scaling activity can start. The default value is `300`.

For more information, see Scaling Cooldowns in the *Amazon EC2 Auto Scaling User Guide*.

Type: Integer

Required: No

**DesiredCapacity**

The number of Amazon EC2 instances that the Auto Scaling group attempts to maintain. This number must be greater than or equal to the minimum size of the group and less than or equal to the maximum size of the group. If you do not specify a desired capacity, the default is the minimum size of the group.

Type: Integer

Required: No

**HealthCheckGracePeriod**

The amount of time, in seconds, that Amazon EC2 Auto Scaling waits before checking the health status of an EC2 instance that has come into service. During this time, any health check failures for the instance are ignored. The default value is `0`.

For more information, see Health Check Grace Period in the *Amazon EC2 Auto Scaling User Guide*.

Conditional: This parameter is required if you are adding an `ELB` health check.

Type: Integer

Required: No

**HealthCheckType**

The service to use for the health checks. The valid values are `EC2` and `ELB`. The default value is `EC2`. If you configure an Auto Scaling group to use ELB health checks, it considers the instance unhealthy if it fails either the EC2 status checks or the load balancer health checks.

For more information, see Health Checks for Auto Scaling Instances in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**InstanceId**

The ID of the instance used to create a launch configuration for the group.

When you specify an ID of an instance, Amazon EC2 Auto Scaling creates a new launch configuration and associates it with the group. This launch configuration derives its attributes from the specified instance, except for the block device mapping.

For more information, see Create an Auto Scaling Group Using an EC2 Instance in the *Amazon EC2 Auto Scaling User Guide*.

You must specify one of the following parameters in your request: `LaunchConfigurationName`, `LaunchTemplate`, `InstanceId`, or `MixedInstancesPolicy`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchConfigurationName**

The name of the launch configuration.

For more information, see Creating an Auto Scaling Group Using a Launch Configuration in the *Amazon EC2 Auto Scaling User Guide*.

If you do not specify `LaunchConfigurationName`, you must specify one of the following parameters: `InstanceId`, `LaunchTemplate`, or `MixedInstancesPolicy`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchTemplate**

The launch template to use to launch instances.

For more information, see Creating an Auto Scaling Group Using a Launch Template in the *Amazon EC2 Auto Scaling User Guide*.

If you do not specify `LaunchTemplate`, you must specify one of the following parameters: `InstanceId`, `LaunchConfigurationName`, or `MixedInstancesPolicy`.

Type: LaunchTemplateSpecification (p. 182) object

Required: No

**LifecycleHookSpecificationList.member.N**

One or more lifecycle hooks.

Type: Array of LifecycleHookSpecification (p. 186) objects

Required: No

**LoadBalancerNames.member.N**

A list of Classic Load Balancers associated with this Auto Scaling group. For Application Load Balancers and Network Load Balancers, specify a list of target groups using the `TargetGroupARNs` property instead.

For more information, see Using a Load Balancer with an Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MaxInstanceLifetime**

The maximum amount of time, in seconds, that an instance can be in service.

For more information, see Replacing Auto Scaling Instances Based on Maximum Instance Lifetime in the *Amazon EC2 Auto Scaling User Guide*.

Valid Range: Minimum value of 604800.

Type: Integer

Required: No

**MaxSize**

The maximum size of the group.

Type: Integer

Required: Yes

**MinSize**

The minimum size of the group.

Type: Integer

Required: Yes

**MixedInstancesPolicy**

An embedded object that specifies a mixed instances policy. The required parameters must be specified. If optional parameters are unspecified, their default values are used.

The policy includes parameters that not only define the distribution of On-Demand Instances and Spot Instances, the maximum price to pay for Spot Instances, and how the Auto Scaling group allocates instance types to fulfill On-Demand and Spot capacity, but also the parameters that specify the instance configuration information—the launch template and instance types.

For more information, see Auto Scaling Groups with Multiple Instance Types and Purchase Options in the *Amazon EC2 Auto Scaling User Guide*.

You must specify one of the following parameters in your request: `LaunchConfigurationName`, `LaunchTemplate`, `InstanceId`, or `MixedInstancesPolicy`.

Type: MixedInstancesPolicy (p. 194) object

Required: No

**NewInstancesProtectedFromScaleIn**

Indicates whether newly launched instances are protected from termination by Amazon EC2 Auto Scaling when scaling in.

For more information about preventing instances from terminating on scale in, see Instance Protection in the *Amazon EC2 Auto Scaling User Guide*.

Type: Boolean

Required: No

**PlacementGroup**

The name of the placement group into which to launch your instances, if any. A placement group is a logical grouping of instances within a single Availability Zone. You cannot specify multiple Availability Zones and a placement group. For more information, see Placement Groups in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ServiceLinkedRoleARN**

The Amazon Resource Name (ARN) of the service-linked role that the Auto Scaling group uses to call other AWS services on your behalf. By default, Amazon EC2 Auto Scaling uses a service-linked role named AWSServiceRoleForAutoScaling, which it creates if it does not exist. For more information, see Service-Linked Roles in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Tags.member.N**

One or more tags.

For more information, see Tagging Auto Scaling Groups and Instances in the *Amazon EC2 Auto Scaling User Guide*.

Type: Array of Tag (p. 208) objects

Required: No

**TargetGroupARNs.member.N**

The Amazon Resource Names (ARN) of the target groups to associate with the Auto Scaling group. Instances are registered as targets in a target group, and traffic is routed to the target group.

For more information, see Using a Load Balancer with an Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 511.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**TerminationPolicies.member.N**

One or more termination policies used to select the instance to terminate. These policies are executed in the order that they are listed.

For more information, see Controlling Which Instances Auto Scaling Terminates During Scale In in the *Amazon EC2 Auto Scaling User Guide*.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**VPCZoneIdentifier**

A comma-separated list of subnet IDs for your virtual private cloud (VPC).

If you specify `VPCZoneIdentifier` with `AvailabilityZones`, the subnets that you specify for this parameter must reside in those Availability Zones.

Conditional: If your account supports EC2-Classic and VPC, this parameter is required to launch instances into a VPC.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**AlreadyExists**

You already have an Auto Scaling group or launch configuration with this name.

HTTP Status Code: 400

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=CreateAutoScalingGroup
&AutoScalingGroupName=my-asg
&AvailabilityZones.member.1=us-east-1a
&AvailabilityZones.member.2=us-east-1b
&MinSize=2
&MaxSize=10
&DesiredCapacity=2
&LoadBalancerNames.member.1=my-loadbalancer
&HealthCheckType=ELB
&HealthCheckGracePeriod=120
&LaunchConfigurationName=my-lc
&Version=2011-01-01
&AUTHPARAMS
```

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

# CreateLaunchConfiguration

Creates a launch configuration.

If you exceed your maximum limit of launch configurations, the call fails. For information about viewing this limit, see DescribeAccountLimits (p. 48). For information about updating this limit, see Amazon EC2 Auto Scaling Limits in the *Amazon EC2 Auto Scaling User Guide*.

For more information, see Launch Configurations in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AssociatePublicIpAddress**

For Auto Scaling groups that are running in a virtual private cloud (VPC), specifies whether to assign a public IP address to the group's instances. If you specify `true`, each instance in the Auto Scaling group receives a unique public IP address. For more information, see Launching Auto Scaling Instances in a VPC in the *Amazon EC2 Auto Scaling User Guide*.

If you specify this parameter, you must specify at least one subnet for `VPCZoneIdentifier` when you create your group.

**Note**
If the instance is launched into a default subnet, the default is to assign a public IP address, unless you disabled the option to assign a public IP address on the subnet. If the instance is launched into a nondefault subnet, the default is not to assign a public IP address, unless you enabled the option to assign a public IP address on the subnet.

Type: Boolean

Required: No

**BlockDeviceMappings.member.N**

A block device mapping, which specifies the block devices for the instance. You can specify virtual devices and EBS volumes. For more information, see Block Device Mapping in the *Amazon EC2 User Guide for Linux Instances*.

Type: Array of BlockDeviceMapping (p. 160) objects

Required: No

**ClassicLinkVPCId**

The ID of a ClassicLink-enabled VPC to link your EC2-Classic instances to. For more information, see ClassicLink in the *Amazon EC2 User Guide for Linux Instances* and Linking EC2-Classic Instances to a VPC in the *Amazon EC2 Auto Scaling User Guide*.

This parameter can only be used if you are launching EC2-Classic instances.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ClassicLinkVPCSecurityGroups.member.N**

The IDs of one or more security groups for the specified ClassicLink-enabled VPC. For more information, see ClassicLink in the *Amazon EC2 User Guide for Linux Instances* and Linking EC2-Classic Instances to a VPC in the *Amazon EC2 Auto Scaling User Guide*.

If you specify the `ClassicLinkVPCId` parameter, you must specify this parameter.

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**EbsOptimized**

Specifies whether the launch configuration is optimized for EBS I/O (`true`) or not (`false`). The optimization provides dedicated throughput to Amazon EBS and an optimized configuration stack to provide optimal I/O performance. This optimization is not available with all instance types. Additional fees are incurred when you enable EBS optimization for an instance type that is not EBS-optimized by default. For more information, see Amazon EBS-Optimized Instances in the *Amazon EC2 User Guide for Linux Instances*.

The default value is `false`.

Type: Boolean

Required: No

**IamInstanceProfile**

The name or the Amazon Resource Name (ARN) of the instance profile associated with the IAM role for the instance. The instance profile contains the IAM role.

For more information, see IAM Role for Applications That Run on Amazon EC2 Instances in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ImageId**

The ID of the Amazon Machine Image (AMI) that was assigned during registration. For more information, see Finding an AMI in the *Amazon EC2 User Guide for Linux Instances*.

If you do not specify `InstanceId`, you must specify `ImageId`.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**InstanceId**

The ID of the instance to use to create the launch configuration. The new launch configuration derives attributes from the instance, except for the block device mapping.

To create a launch configuration with a block device mapping or override any other instance attributes, specify them as part of the same request.

For more information, see Create a Launch Configuration Using an EC2 Instance in the *Amazon EC2 Auto Scaling User Guide*.

If you do not specify `InstanceId`, you must specify both `ImageId` and `InstanceType`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**InstanceMonitoring**

Controls whether instances in this group are launched with detailed (`true`) or basic (`false`) monitoring.

The default value is `true` (enabled).

> **Important**
> When detailed monitoring is enabled, Amazon CloudWatch generates metrics every minute and your account is charged a fee. When you disable detailed monitoring, CloudWatch generates metrics every 5 minutes. For more information, see Configure Monitoring for Auto Scaling Instances in the *Amazon EC2 Auto Scaling User Guide*.

Type: InstanceMonitoring (p. 171) object

Required: No

**InstanceType**

Specifies the instance type of the EC2 instance.

For information about available instance types, see Available Instance Types in the *Amazon EC2 User Guide for Linux Instances.*

If you do not specify `InstanceId`, you must specify `InstanceType`.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**KernelId**

The ID of the kernel associated with the AMI.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**KeyName**

The name of the key pair. For more information, see Amazon EC2 Key Pairs in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchConfigurationName**

The name of the launch configuration. This name must be unique per Region per account.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**PlacementTenancy**

The tenancy of the instance. An instance with `dedicated` tenancy runs on isolated, single-tenant hardware and can only be launched into a VPC.

To launch dedicated instances into a shared tenancy VPC (a VPC with the instance placement tenancy attribute set to `default`), you must set the value of this parameter to `dedicated`.

If you specify `PlacementTenancy`, you must specify at least one subnet for `VPCZoneIdentifier` when you create your group.

For more information, see Instance Placement Tenancy in the *Amazon EC2 Auto Scaling User Guide*.

Valid Values: `default` | `dedicated`

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**RamdiskId**

The ID of the RAM disk to select.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**SecurityGroups.member.N**

A list that contains the security groups to assign to the instances in the Auto Scaling group.

[EC2-VPC] Specify the security group IDs. For more information, see Security Groups for Your VPC in the *Amazon Virtual Private Cloud User Guide*.

[EC2-Classic] Specify either the security group names or the security group IDs. For more information, see Amazon EC2 Security Groups in the *Amazon EC2 User Guide for Linux Instances*.

Type: Array of strings

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**SpotPrice**

The maximum hourly price to be paid for any Spot Instance launched to fulfill the request. Spot Instances are launched when the price you specify exceeds the current Spot price. For more information, see Launching Spot Instances in Your Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

> **Note**
> When you change your maximum price by creating a new launch configuration, running instances will continue to run as long as the maximum price for those running instances is higher than the current Spot price.

Type: String

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

Required: No

**UserData**

The Base64-encoded user data to make available to the launched EC2 instances. For more information, see Instance Metadata and User Data in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

Length Constraints: Maximum length of 21847.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**AlreadyExists**

You already have an Auto Scaling group or launch configuration with this name.

HTTP Status Code: 400

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=CreateLaunchConfiguration
&LaunchConfigurationName=my-lc
&ImageId=ami-12345678
&InstanceType=t2.micro
&SecurityGroups.member.1=sg-12345678
&Version=2011-01-01
&AUTHPARAMS
```

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

# CreateOrUpdateTags

Creates or updates tags for the specified Auto Scaling group.

When you specify a tag with a key that already exists, the operation overwrites the previous tag definition, and you do not get an error message.

For more information, see Tagging Auto Scaling Groups and Instances in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**Tags.member.N**

One or more tags.

Type: Array of Tag (p. 208) objects

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**AlreadyExists**

You already have an Auto Scaling group or launch configuration with this name.

HTTP Status Code: 400

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ResourceInUse**

The operation can't be performed because the resource is in use.

HTTP Status Code: 400

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=CreateOrUpdateTags
```

```
&Tags.member.1.ResourceId=my-asg
&Tags.member.1.ResourceType=auto-scaling-group
&Tags.member.1.Key=environment
&Tags.member.1.Value=test
&Tags.member.1.PropagateAtLaunch=true
&Version=2011-01-01
&AUTHPARAMS
```

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

# DeleteAutoScalingGroup

Deletes the specified Auto Scaling group.

If the group has instances or scaling activities in progress, you must specify the option to force the deletion in order for it to succeed.

If the group has policies, deleting the group deletes the policies, the underlying alarm actions, and any alarm that no longer has an associated action.

To remove instances from the Auto Scaling group before deleting it, call DetachInstances (p. 94) with the list of instances and the option to decrement the desired capacity. This ensures that Amazon EC2 Auto Scaling does not launch replacement instances.

To terminate all instances before deleting the Auto Scaling group, call UpdateAutoScalingGroup (p. 140) and set the minimum size and desired capacity of the Auto Scaling group to zero.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ForceDelete**

Specifies that the group is to be deleted along with all instances associated with the group, without waiting for all instances to be terminated. This parameter also deletes any lifecycle actions associated with the group.

Type: Boolean

Required: No

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ResourceInUse**

The operation can't be performed because the resource is in use.

HTTP Status Code: 400

**ScalingActivityInProgress**

The operation can't be performed because there are scaling activities in progress.

HTTP Status Code: 400

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DeleteAutoScalingGroup
&AutoScalingGroupName=my-asg
&ForceDelete=true
&Version=2011-01-01
&AUTHPARAMS
```

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

# DeleteLaunchConfiguration

Deletes the specified launch configuration.

The launch configuration must not be attached to an Auto Scaling group. When this call completes, the launch configuration is no longer available for use.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**LaunchConfigurationName**

The name of the launch configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ResourceInUse**

The operation can't be performed because the resource is in use.

HTTP Status Code: 400

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DeleteLaunchConfiguration
&LaunchConfigurationName=my-lc
&Version=2011-01-01
&AUTHPARAMS
```

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

# DeleteLifecycleHook

Deletes the specified lifecycle hook.

If there are any outstanding lifecycle actions, they are completed first (`ABANDON` for launching instances, `CONTINUE` for terminating instances).

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**LifecycleHookName**

The name of the lifecycle hook.

Type: String

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

Pattern: `[A-Za-z0-9\-_\/]+`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DeleteLifecycleHook
&AutoScalingGroupName=my-asg
&LifecycleHookName=my-hook
&Version=2011-01-01
```

```
&AUTHPARAMS
```

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

# DeleteNotificationConfiguration

Deletes the specified notification.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**TopicARN**

The Amazon Resource Name (ARN) of the Amazon Simple Notification Service (Amazon SNS) topic.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DeleteNotificationConfiguration
&AutoScalingGroupName=my-asg
&TopicARN=arn:aws:sns:us-east-1:123456789012:my-sns-topic
&Version=2011-01-01
&AUTHPARAMS
```

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

# DeletePolicy

Deletes the specified scaling policy.

Deleting either a step scaling policy or a simple scaling policy deletes the underlying alarm action, but does not delete the alarm, even if it no longer has an associated action.

For more information, see Deleting a Scaling Policy in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**PolicyName**

The name or Amazon Resource Name (ARN) of the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DeletePolicy
&AutoScalingGroupName=my-asg
&PolicyName=ScaleIn
&Version=2011-01-01
&AUTHPARAMS
```

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

# DeleteScheduledAction

Deletes the specified scheduled action.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ScheduledActionName**

The name of the action to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DeleteScheduledAction
&AutoScalingGroupName=my-asg
&ScheduledActionName=my-scheduled-action
&Version=2011-01-01
&AUTHPARAMS
```

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

# DeleteTags

Deletes the specified tags.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**Tags.member.N**

One or more tags.

Type: Array of Tag (p. 208) objects

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ResourceInUse**

The operation can't be performed because the resource is in use.

HTTP Status Code: 400

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DeleteTags
&Tags.member.1.ResourceId=my-asg
&Tags.member.1.ResourceType=auto-scaling-group
&Tags.member.1.Key=environment
&Version=2011-01-01
&AUTHPARAMS
```

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

# DescribeAccountLimits

Describes the current Amazon EC2 Auto Scaling resource limits for your AWS account.

For information about requesting an increase in these limits, see Amazon EC2 Auto Scaling Limits in the *Amazon EC2 Auto Scaling User Guide*.

## Response Elements

The following elements are returned by the service.

**MaxNumberOfAutoScalingGroups**

The maximum number of groups allowed for your AWS account. The default limit is 200 per AWS Region.

Type: Integer

**MaxNumberOfLaunchConfigurations**

The maximum number of launch configurations allowed for your AWS account. The default limit is 200 per AWS Region.

Type: Integer

**NumberOfAutoScalingGroups**

The current number of groups for your AWS account.

Type: Integer

**NumberOfLaunchConfigurations**

The current number of launch configurations for your AWS account.

Type: Integer

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeAccountLimits
&Version=2011-01-01
&AUTHPARAMS
```

### Sample Response

```
<DescribeAccountLimitsResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <DescribeAccountLimitsResult>
    <NumberOfLaunchConfigurations>5</NumberOfLaunchConfigurations>
    <MaxNumberOfLaunchConfigurations>200</MaxNumberOfLaunchConfigurations>
    <NumberOfAutoScalingGroups>10</NumberOfAutoScalingGroups>
    <MaxNumberOfAutoScalingGroups>200</MaxNumberOfAutoScalingGroups>
  </DescribeAccountLimitsResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeAccountLimitsResponse>
```

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

# DescribeAdjustmentTypes

Describes the policy adjustment types for use with PutScalingPolicy (p. 118).

## Response Elements

The following element is returned by the service.

**AdjustmentTypes.member.N**

The policy adjustment types.

Type: Array of AdjustmentType (p. 150) objects

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeAdjustmentTypes
&Version=2011-01-01
&AUTHPARAMS
```

### Sample Response

```
<DescribeAdjustmentTypesResponse xmlns="http://autoscaling.amazonaws.com/doc/201-01-01/">
  <DescribeAdjustmentTypesResult>
    <AdjustmentTypes>
      <member>
        <AdjustmentType>ChangeInCapacity</AdjustmentType>
      </member>
      <member>
        <AdjustmentType>ExactCapacity</AdjustmentType>
      </member>
      <member>
        <AdjustmentType>PercentChangeInCapacity</AdjustmentType>
      </member>
    </AdjustmentTypes>
  </DescribeAdjustmentTypesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeAdjustmentTypesResponse>
```

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

# DescribeAutoScalingGroups

Describes one or more Auto Scaling groups.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupNames.member.N**

The names of the Auto Scaling groups. Each name can be a maximum of 1600 characters. By default, you can only specify up to 50 names. You can optionally increase this limit using the `MaxRecords` parameter.

If you omit this parameter, all Auto Scaling groups are described.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MaxRecords**

The maximum number of items to return with this call. The default value is `50` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following elements are returned by the service.

**AutoScalingGroups.member.N**

The groups.

Type: Array of AutoScalingGroup (p. 152) objects

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**InvalidNextToken**

The `NextToken` value is not valid.

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeAutoScalingGroups
&AutoScalingGroupNames.member.1=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DescribeAutoScalingGroupsResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeAutoScalingGroupsResult>
    <AutoScalingGroups>
      <member>
        <HealthCheckType>ELB</HealthCheckType>
        <LoadBalancerNames>
          <member>my-loadbalancer</member>
        </LoadBalancerNames>
        <Instances>
          <member>
            <LaunchConfigurationName>my-lc</LaunchConfigurationName>
            <LifecycleState>InService</LifecycleState>
            <InstanceId>i-12345678</InstanceId>
            <ProtectedFromScaleIn>false</ProtectedFromScaleIn>
            <AvailabilityZone>us-east-1c</AvailabilityZone>
          </member>
        </Instances>
        <TerminationPolicies>
          <member>Default</member>
        </TerminationPolicies>
        <DefaultCooldown>300</DefaultCooldown>
        <AutoScalingGroupARN>arn:aws:autoscaling:us-
east-1:123456789012:autoScalingGroup:12345678-1234-1234-1234-123456789012:autoScalingGroupName/
my-asg</AutoScalingGroupARN>
        <EnabledMetrics />
```

```
        <AvailabilityZones>
          <member>us-east-1b</member>
          <member>us-east-1a</member>
        </AvailabilityZones>
        <Tags>
          <member>
            <ResourceId>my-asg</ResourceId>
            <PropagateAtLaunch>true</PropagateAtLaunch>
            <Value>test</Value>
            <Key>environment</Key>
            <ResourceType>auto-scaling-group</ResourceType>
          </member>
        </Tags>
        <LaunchConfigurationName>my-lc</LaunchConfigurationName>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <HealthCheckGracePeriod>300</HealthCheckGracePeriod>
        <NewInstancesProtectedFromScaleIn>false</NewInstancesProtectedFromScaleIn>
        <SuspendedProcesses />
        <CreatedTime>2015-05-06T17:47:15.107Z</CreatedTime>
        <MinSize>2</MinSize>
        <MaxSize>10</MaxSize>
        <DesiredCapacity>2</DesiredCapacity>
        <VPCZoneIdentifier>subnet-12345678,subnet-98765432</VPCZoneIdentifier>
      </member>
    </AutoScalingGroups>
  </DescribeAutoScalingGroupsResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeAutoScalingGroupsResponse>
```

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

# DescribeAutoScalingInstances

Describes one or more Auto Scaling instances.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**InstanceIds.member.N**

The IDs of the instances. You can specify up to `MaxRecords` IDs. If you omit this parameter, all Auto Scaling instances are described. If you specify an ID that does not exist, it is ignored with no error.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MaxRecords**

The maximum number of items to return with this call. The default value is `50` and the maximum value is `50`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following elements are returned by the service.

**AutoScalingInstances.member.N**

The instances.

Type: Array of AutoScalingInstanceDetails (p. 157) objects

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**InvalidNextToken**

The `NextToken` value is not valid.

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeAutoScalingInstances
&InstanceIds.member.1=i-12345678
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DescribeAutoScalingInstancesResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeAutoScalingInstancesResult>
    <AutoScalingInstances>
      <member>
        <LaunchConfigurationName>my-lc</LaunchConfigurationName>
        <LifecycleState>InService</LifecycleState>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <InstanceId>i-12345678</InstanceId>
        <HealthStatus>HEALTHY</HealthStatus>
        <ProtectedFromScaleIn>false</ProtectedFromScaleIn>
        <AvailabilityZone>us-east-1b</AvailabilityZone>
      </member>
    </AutoScalingInstances>
  </DescribeAutoScalingInstancesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeAutoScalingInstancesResponse>
```

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

# DescribeAutoScalingNotificationTypes

Describes the notification types that are supported by Amazon EC2 Auto Scaling.

## Response Elements

The following element is returned by the service.

**AutoScalingNotificationTypes.member.N**

The notification types.

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?
Version=2011-01-01&Action=DescribeAutoScalingNotificationTypes
&Version=2011-01-01
&AUTHPARAMS
```

### Sample Response

```
<DescribeAutoScalingNotificationTypesResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeAutoScalingNotificationTypesResult>
    <AutoScalingNotificationTypes>
      <member>autoscaling:EC2_INSTANCE_LAUNCH</member>
      <member>autoscaling:EC2_INSTANCE_LAUNCH_ERROR</member>
      <member>autoscaling:EC2_INSTANCE_TERMINATE</member>
      <member>autoscaling:EC2_INSTANCE_TERMINATE_ERROR</member>
      <member>autoscaling:TEST_NOTIFICATION</member>
    </AutoScalingNotificationTypes>
  </DescribeAutoScalingNotificationTypesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
```

```
</DescribeAutoScalingNotificationTypesResponse>
```

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

# DescribeLaunchConfigurations

Describes one or more launch configurations.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**LaunchConfigurationNames.member.N**

The launch configuration names. If you omit this parameter, all launch configurations are described.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MaxRecords**

The maximum number of items to return with this call. The default value is `50` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following elements are returned by the service.

**LaunchConfigurations.member.N**

The launch configurations.

Type: Array of LaunchConfiguration (p. 175) objects

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**InvalidNextToken**

The `NextToken` value is not valid.

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeLaunchConfigurations
&LaunchConfigurationNames.member.1=my-lc
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DescribeLaunchConfigurationsResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeLaunchConfigurationsResult>
    <LaunchConfigurations>
      <member>
        <KernelId />
        <EbsOptimized>false</EbsOptimized>
        <RamdiskId />
        <UserData />
        <ImageId>ami-12345678</ImageId>
        <BlockDeviceMappings />
        <ClassicLinkVPCSecurityGroups />
        <InstanceType>t2.micro</InstanceType>
        <KeyName />
        <LaunchConfigurationARN>arn:aws:autoscaling:us-
east-1:123456789012:launchConfiguration:12345678-1234-1234-1234-123456789012:launchConfigurationName/
my-lc</LaunchConfigurationARN>
        <LaunchConfigurationName>my-lc</LaunchConfigurationName>
        <CreatedTime>2015-01-21T23:04:42.200Z</CreatedTime>
        <SecurityGroups>
          <member>sg-12345678</member>
        </SecurityGroups>
        <InstanceMonitoring>
          <Enabled>true</Enabled>
        </InstanceMonitoring>
      </member>
    </LaunchConfigurations>
  </DescribeLaunchConfigurationsResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
```

```
</DescribeLaunchConfigurationsResponse>
```

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

# DescribeLifecycleHooks

Describes the lifecycle hooks for the specified Auto Scaling group.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**LifecycleHookNames.member.N**

The names of one or more lifecycle hooks. If you omit this parameter, all lifecycle hooks are described.

Type: Array of strings

Array Members: Maximum number of 50 items.

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

Pattern: `[A-Za-z0-9\-_\/]+`

Required: No

## Response Elements

The following element is returned by the service.

**LifecycleHooks.member.N**

The lifecycle hooks for the specified group.

Type: Array of LifecycleHook (p. 184) objects

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeLifecycleHooks
&AutoScalingGroupName=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DescribeLifecycleHooksResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <DescribeLifecycleHooksResult>
    <LifecycleHooks>
      <member>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <RoleARN>arn:aws:iam::1234567890:role/my-auto-scaling-role</RoleARN>
        <LifecycleTransition>autoscaling:EC2_INSTANCE_LAUNCHING</LifecycleTransition>
        <GlobalTimeout>172800</GlobalTimeout>
        <LifecycleHookName>my-launch-hook</LifecycleHookName>
        <HeartbeatTimeout>3600</HeartbeatTimeout>
        <DefaultResult>ABANDON</DefaultResult>
        <NotificationTargetARN>arn:aws:sqs:us-east-1:123456789012:my-queue</
NotificationTargetARN>
      </member>
    </LifecycleHooks>
  </DescribeLifecycleHooksResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeLifecycleHooksResponse>
```

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

# DescribeLifecycleHookTypes

Describes the available types of lifecycle hooks.

The following hook types are supported:

- autoscaling:EC2_INSTANCE_LAUNCHING
- autoscaling:EC2_INSTANCE_TERMINATING

## Response Elements

The following element is returned by the service.

**LifecycleHookTypes.member.N**

The lifecycle hook types.

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeLifecycleHookTypes
&AutoScalingGroupName=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

### Sample Response

```
<DescribeLifecycleHookTypesResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeLifecycleHookTypesResult>
    <LifecycleHookTypes>
      <member>autoscaling:EC2_INSTANCE_LAUNCHING</member>
      <member>autoscaling:EC2_INSTANCE_TERMINATING</member>
    </LifecycleHookTypes>
```

```
  </DescribeLifecycleHookTypesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeLifecycleHookTypesResponse>
```

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

# DescribeLoadBalancers

Describes the load balancers for the specified Auto Scaling group.

This operation describes only Classic Load Balancers. If you have Application Load Balancers or Network Load Balancers, use DescribeLoadBalancerTargetGroups (p. 70) instead.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**MaxRecords**

The maximum number of items to return with this call. The default value is `100` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following elements are returned by the service.

**LoadBalancers.member.N**

The load balancers.

Type: Array of LoadBalancerState (p. 189) objects

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeLoadBalancers
&AutoScalingGroupName=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DescribeLoadBalancersResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <DescribeLoadBalancersResult>
    <LoadBalancers>
      <member>
        <LoadBalancerName>my-loadbalancer</LoadBalancerName>
        <State>Added</State>
      </member>
    </LoadBalancers>
  </DescribeLoadBalancersResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeLoadBalancersResponse>
```

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

# DescribeLoadBalancerTargetGroups

Describes the target groups for the specified Auto Scaling group.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**MaxRecords**

The maximum number of items to return with this call. The default value is `100` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following elements are returned by the service.

**LoadBalancerTargetGroups.member.N**

Information about the target groups.

Type: Array of LoadBalancerTargetGroupState (p. 190) objects

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

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

# DescribeMetricCollectionTypes

Describes the available CloudWatch metrics for Amazon EC2 Auto Scaling.

The `GroupStandbyInstances` metric is not returned by default. You must explicitly request this metric when calling EnableMetricsCollection (p. 103).

## Response Elements

The following elements are returned by the service.

**Granularities.member.N**

The granularities for the metrics.

Type: Array of MetricGranularityType (p. 193) objects

**Metrics.member.N**

One or more metrics.

Type: Array of MetricCollectionType (p. 191) objects

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Version=2011-01-01&Action=DescribeMetricCollectionTypes
&Version=2011-01-01
&AUTHPARAMS
```

### Sample Response

```
<DescribeMetricCollectionTypesResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeMetricCollectionTypesResult>
    <Granularities>
      <member>
        <Granularity>1Minute</Granularity>
      </member>
    </Granularities>
    <Metrics>
      <member>
```

```
        <Metric>GroupMinSize</Metric>
      </member>
      <member>
        <Metric>GroupMaxSize</Metric>
      </member>
      <member>
        <Metric>GroupDesiredCapacity</Metric>
      </member>
      <member>
        <Metric>GroupInServiceInstances</Metric>
      </member>
      <member>
        <Metric>GroupPendingInstances</Metric>
      </member>
      <member>
        <Metric>GroupTerminatingInstances</Metric>
      </member>
      <member>
        <Metric>GroupStandbyInstances</Metric>
      </member>
      <member>
        <Metric>GroupTotalInstances</Metric>
      </member>
    </Metrics>
  </DescribeMetricCollectionTypesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeMetricCollectionTypesResponse>
```

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

# DescribeNotificationConfigurations

Describes the notification actions associated with the specified Auto Scaling group.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupNames.member.N**

The name of the Auto Scaling group.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MaxRecords**

The maximum number of items to return with this call. The default value is `50` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following elements are returned by the service.

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

**NotificationConfigurations.member.N**

The notification configurations.

Type: Array of NotificationConfiguration (p. 195) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**InvalidNextToken**

The `NextToken` value is not valid.

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?
Version=2011-01-01&Action=DescribeNotificationConfigurations
&AutoScalingGroupNames.member.1=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DescribeNotificationConfigurationsResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeNotificationConfigurationsResult>
    <NotificationConfigurations>
      <member>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <NotificationType>autoscaling:EC2_INSTANCE_LAUNCH</NotificationType>
        <TopicARN>arn:aws:sns:us-east-1:123456789012:my-sns-topic</TopicARN>
      </member>
    </NotificationConfigurations>
  </DescribeNotificationConfigurationsResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeNotificationConfigurationsResponse>
```

# 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
- AWS SDK for JavaScript

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

# DescribePolicies

Describes the policies for the specified Auto Scaling group.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MaxRecords**

The maximum number of items to be returned with each call. The default value is `50` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**PolicyNames.member.N**

The names of one or more policies. If you omit this parameter, all policies are described. If a group name is provided, the results are limited to that group. This list is limited to 50 items. If you specify an unknown policy name, it is ignored with no error.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**PolicyTypes.member.N**

One or more policy types. The valid values are `SimpleScaling`, `StepScaling`, and `TargetTrackingScaling`.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

# Response Elements

The following elements are returned by the service.

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

**ScalingPolicies.member.N**

The scaling policies.

Type: Array of ScalingPolicy (p. 198) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**InvalidNextToken**

The `NextToken` value is not valid.

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribePolicies
&AutoScalingGroupName=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

### Sample Response

```
<DescribePoliciesResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <DescribePoliciesResult>
    <ScalingPolicies>
      <member>
        <PolicyARN>arn:aws:autoscaling:us-
east-1:123456789012:scalingPolicy:c322761b-3172-4d56-9a21-0ed9dEXAMPLE:autoScalingGroupName/
my-asg:policyName/MyScaleInPolicy</PolicyARN>
        <AdjustmentType>ChangeInCapacity</AdjustmentType>
        <ScalingAdjustment>-1</ScalingAdjustment>
        <PolicyName>MyScaleInPolicy</PolicyName>
        <PolicyType>SimpleScaling</PolicyType>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <Cooldown>60</Cooldown>
        <Alarms>
          <member>
            <AlarmName>TestQueue</AlarmName>
            <AlarmARN>arn:aws:cloudwatch:us-east-1:123456789012:alarm:TestQueue</AlarmARN>
          </member>
        </Alarms>
      </member>
      <member>
        <PolicyARN>arn:aws:autoscaling:us-
east-1:123456789012:scalingPolicy:c55a5cdd-9be0-435b-b60b-
a8dd3EXAMPLE:autoScalingGroupName/my-asg:policyName/MyScaleOutPolicy</PolicyARN>
        <AdjustmentType>ChangeInCapacity</AdjustmentType>
        <ScalingAdjustment>1</ScalingAdjustment>
        <PolicyName>MyScaleOutPolicy</PolicyName>
        <PolicyType>SimpleScaling</PolicyType>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <Cooldown>60</Cooldown>
        <Alarms>
          <member>
            <AlarmName>TestQueue</AlarmName>
            <AlarmARN>arn:aws:cloudwatch:us-east-1:123456789012:alarm:TestQueue</AlarmARN>
          </member>
        </Alarms>
      </member>
    </ScalingPolicies>
  </DescribePoliciesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribePoliciesResponse>
```

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

# DescribeScalingActivities

Describes one or more scaling activities for the specified Auto Scaling group.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**ActivityIds.member.N**

The activity IDs of the desired scaling activities. You can specify up to 50 IDs. If you omit this parameter, all activities for the past six weeks are described. If unknown activities are requested, they are ignored with no error. If you specify an Auto Scaling group, the results are limited to that group.

Type: Array of strings

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MaxRecords**

The maximum number of items to return with this call. The default value is `100` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following elements are returned by the service.

**Activities.member.N**

The scaling activities. Activities are sorted by start time. Activities still in progress are described first.

Type: Array of Activity (p. 148) objects

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**InvalidNextToken**

The `NextToken` value is not valid.

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeScalingActivities
&AutoScalingGroupName=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DescribeScalingActivitiesResponse xmlns="http://ec2.amazonaws.com/doc/2011-01-01/">
  <DescribeScalingActivitiesResult>
    <Activities>
      <member>
        <StatusCode>Failed</StatusCode>
        <Progress>0</Progress>
        <ActivityId>12345678-1234-1234-1234-123456789012</ActivityId>
        <StartTime>2019-04-12T17:32:07.882Z</StartTime>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <Cause>At 2019-04-12T17:31:30Z a user request created an AutoScalingGroup changing
 the desired capacity from 0 to 1.  At 2019-04-12T17:32:07Z an instance was started in
 response to a difference between desired and actual capacity, increasing the capacity from
 0 to 1.</Cause>
        <Details>{}</Details>
        <Description>Launching a new EC2 instance.  Status Reason: The image id
 'ami-4edb0327' does not exist. Launching EC2 instance failed.</Description>
        <EndTime>2019-04-12T17:32:08Z</EndTime>
```

```
        <StatusMessage>The image id 'ami-4edb0327' does not exist. Launching EC2 instance
 failed.</StatusMessage>
      </member>
    </Activities>
  </DescribeScalingActivitiesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeScalingActivitiesResponse>
```

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

# DescribeScalingProcessTypes

Describes the scaling process types for use with ResumeProcesses (p. 128) and SuspendProcesses (p. 136).

## Response Elements

The following element is returned by the service.

**Processes.member.N**

The names of the process types.

Type: Array of ProcessType (p. 197) objects

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeScalingProcessTypes
&Version=2011-01-01
&AUTHPARAMS
```

### Sample Response

```
<DescribeScalingProcessTypesResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeScalingProcessTypesResult>
    <Processes>
      <member>
        <ProcessName>AZRebalance</ProcessName>
      </member>
      <member>
        <ProcessName>AddToLoadBalancer</ProcessName>
      </member>
      <member>
        <ProcessName>AlarmNotification</ProcessName>
      </member>
      <member>
        <ProcessName>HealthCheck</ProcessName>
      </member>
      <member>
        <ProcessName>Launch</ProcessName>
```

```
      </member>
      <member>
        <ProcessName>ReplaceUnhealthy</ProcessName>
      </member>
      <member>
        <ProcessName>ScheduledActions</ProcessName>
      </member>
      <member>
        <ProcessName>Terminate</ProcessName>
      </member>
    </Processes>
  </DescribeScalingProcessTypesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeScalingProcessTypesResponse>
```

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

# DescribeScheduledActions

Describes the actions scheduled for your Auto Scaling group that haven't run or that have not reached their end time. To describe the actions that have already run, use DescribeScalingActivities (p. 81).

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**EndTime**

The latest scheduled start time to return. If scheduled action names are provided, this parameter is ignored.

Type: Timestamp

Required: No

**MaxRecords**

The maximum number of items to return with this call. The default value is `50` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ScheduledActionNames.member.N**

The names of one or more scheduled actions. You can specify up to 50 actions. If you omit this parameter, all scheduled actions are described. If you specify an unknown scheduled action, it is ignored with no error.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**StartTime**

The earliest scheduled start time to return. If scheduled action names are provided, this parameter is ignored.

Type: Timestamp

Required: No

# Response Elements

The following elements are returned by the service.

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

**ScheduledUpdateGroupActions.member.N**

The scheduled actions.

Type: Array of ScheduledUpdateGroupAction (p. 201) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**InvalidNextToken**

The `NextToken` value is not valid.

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# 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
- AWS SDK for JavaScript

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

# DescribeTags

Describes the specified tags.

You can use filters to limit the results. For example, you can query for the tags for a specific Auto Scaling group. You can specify multiple values for a filter. A tag must match at least one of the specified values for it to be included in the results.

You can also specify multiple filters. The result includes information for a particular tag only if it matches all the filters. If there's no match, no special message is returned.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**Filters.member.N**

One or more filters to scope the tags to return. The maximum number of filters per filter type (for example, `auto-scaling-group`) is 1000.

Type: Array of Filter (p. 168) objects

Required: No

**MaxRecords**

The maximum number of items to return with this call. The default value is `50` and the maximum value is `100`.

Type: Integer

Required: No

**NextToken**

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following elements are returned by the service.

**NextToken**

A string that indicates that the response contains more items than can be returned in a single response. To receive additional items, specify this string for the `NextToken` value when requesting the next set of items. This value is null when there are no more items to return.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

**Tags.member.N**

One or more tags.

Type: Array of TagDescription (p. 210) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**InvalidNextToken**

The `NextToken` value is not valid.

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeTags
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DescribeTagsResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <DescribeTagsResult>
    <Tags>
      <member>
        <ResourceId>my-asg</ResourceId>
        <PropagateAtLaunch>true</PropagateAtLaunch>
        <Value>test</Value>
        <Key>environment</Key>
        <ResourceType>auto-scaling-group</ResourceType>
      </member>
    </Tags>
  </DescribeTagsResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeTagsResponse>
```

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

# DescribeTerminationPolicyTypes

Describes the termination policies supported by Amazon EC2 Auto Scaling.

For more information, see Controlling Which Auto Scaling Instances Terminate During Scale In in the *Amazon EC2 Auto Scaling User Guide*.

## Response Elements

The following element is returned by the service.

**TerminationPolicyTypes.member.N**

The termination policies supported by Amazon EC2 Auto Scaling: `OldestInstance`, `OldestLaunchConfiguration`, `NewestInstance`, `ClosestToNextInstanceHour`, `Default`, `OldestLaunchTemplate`, and `AllocationStrategy`.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DescribeTerminationPolicyTypes
&Version=2011-01-01
&AUTHPARAMS
```

### Sample Response

```
<DescribeTerminationPolicyTypesResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <DescribeTerminationPolicyTypesResult>
    <TerminationPolicyTypes>
      <member>AllocationStrategy</member>
      <member>ClosestToNextInstanceHour</member>
      <member>Default</member>
      <member>NewestInstance</member>
      <member>OldestInstance</member>
```

```
      <member>OldestLaunchConfiguration</member>
     <member>OldestLaunchTemplate</member>
    </TerminationPolicyTypes>
  </DescribeTerminationPolicyTypesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeTerminationPolicyTypesResponse>
```

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

# DetachInstances

Removes one or more instances from the specified Auto Scaling group.

After the instances are detached, you can manage them independent of the Auto Scaling group.

If you do not specify the option to decrement the desired capacity, Amazon EC2 Auto Scaling launches instances to replace the ones that are detached.

If there is a Classic Load Balancer attached to the Auto Scaling group, the instances are deregistered from the load balancer. If there are target groups attached to the Auto Scaling group, the instances are deregistered from the target groups.

For more information, see Detach EC2 Instances from Your Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceIds.member.N**

The IDs of the instances. You can specify up to 20 instances.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ShouldDecrementDesiredCapacity**

Indicates whether the Auto Scaling group decrements the desired capacity value by the number of instances detached.

Type: Boolean

Required: Yes

## Response Elements

The following element is returned by the service.

**Activities.member.N**

The activities related to detaching the instances from the Auto Scaling group.

Type: Array of Activity (p. 148) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DetachInstances
&AutoScalingGroupName=my-asg
&InstanceIds.member.1=i-12345678
&ShouldDecrementDesiredCapacity=true
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<DetachInstancesResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <DetachInstancesResult>
    <Activities>
      <member>
        <ActivityId>12345678-1234-1234-1234-123456789012</ActivityId>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <Description>Detaching EC2 instance: i-12345678</Description>
        <Cause>At 2015-06-14T00:07:30Z instance i-12345678 was detached in response to a
 user request, shrinking the capacity from 4 to 3.</Cause>
        <Progress>50</Progress>
        <StartTime>2015-06-14T00:07:30.280Z</StartTime>
        <Details>{"Availability Zone":"us-east-1a","SubnetID":"subnet-12345678"}</Details>
        <StatusCode>InProgress</StatusCode>
      </member>
    </Activities>
  </DetachInstancesResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</DetachInstancesResponse>
```

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

# DetachLoadBalancers

Detaches one or more Classic Load Balancers from the specified Auto Scaling group.

This operation detaches only Classic Load Balancers. If you have Application Load Balancers or Network Load Balancers, use DetachLoadBalancerTargetGroups (p. 99) instead.

When you detach a load balancer, it enters the `Removing` state while deregistering the instances in the group. When all instances are deregistered, then you can no longer describe the load balancer using DescribeLoadBalancers (p. 67). The instances remain running.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**LoadBalancerNames.member.N**

The names of the load balancers. You can specify up to 10 load balancers.

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## Example

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=DetachLoadBalancers
```

```
&AutoScalingGroupName=my-asg
&LoadBalancerNames.member.1=my-lb
&Version=2011-01-01
&AUTHPARAMS
```

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

# DetachLoadBalancerTargetGroups

Detaches one or more target groups from the specified Auto Scaling group.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**TargetGroupARNs.member.N**

The Amazon Resource Names (ARN) of the target groups. You can specify up to 10 target groups.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 511.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

## 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
- AWS SDK for JavaScript
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V2

# DisableMetricsCollection

Disables group metrics for the specified Auto Scaling group.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**Metrics.member.N**

One or more of the following metrics. If you omit this parameter, all metrics are disabled.

- `GroupMinSize`
- `GroupMaxSize`
- `GroupDesiredCapacity`
- `GroupInServiceInstances`
- `GroupPendingInstances`
- `GroupStandbyInstances`
- `GroupTerminatingInstances`
- `GroupTotalInstances`

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=DisableMetricsCollection
&AutoScalingGroupName=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

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

# EnableMetricsCollection

Enables group metrics for the specified Auto Scaling group. For more information, see Monitoring Your Auto Scaling Groups and Instances in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**Granularity**

The granularity to associate with the metrics to collect. The only valid value is `1Minute`.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**Metrics.member.N**

One or more of the following metrics. If you omit this parameter, all metrics are enabled.

- `GroupMinSize`
- `GroupMaxSize`
- `GroupDesiredCapacity`
- `GroupInServiceInstances`
- `GroupPendingInstances`
- `GroupStandbyInstances`
- `GroupTerminatingInstances`
- `GroupTotalInstances`

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=EnableMetricsCollection
&AutoScalingGroupName=my-asg
&Granularity=1Minute
&Version=2011-01-01
&AUTHPARAMS
```

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

# EnterStandby

Moves the specified instances into the standby state.

If you choose to decrement the desired capacity of the Auto Scaling group, the instances can enter standby as long as the desired capacity of the Auto Scaling group after the instances are placed into standby is equal to or greater than the minimum capacity of the group.

If you choose not to decrement the desired capacity of the Auto Scaling group, the Auto Scaling group launches new instances to replace the instances on standby.

For more information, see Temporarily Removing Instances from Your Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceIds.member.N**

The IDs of the instances. You can specify up to 20 instances.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ShouldDecrementDesiredCapacity**

Indicates whether to decrement the desired capacity of the Auto Scaling group by the number of instances moved to `Standby` mode.

Type: Boolean

Required: Yes

## Response Elements

The following element is returned by the service.

**Activities.member.N**

The activities related to moving instances into `Standby` mode.

Type: Array of Activity (p. 148) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=EnterStandby
&AutoScalingGroupName=my-asg
&InstanceIds.member.1=i-12345678
&ShouldDecrementDesiredCapacity=true
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<EnterStandbyResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <EnterStandbyResult>
    <Activities>
      <member>
        <ActivityId>12345678-1234-1234-1234-123456789012</ActivityId>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <Description>Moving EC2 instance to Standby: i-12345678</Description>
        <Progress>50</Progress>
        <Cause>At 2015-06-13T22:35:50Z instance i-5b73d709 was moved to standby in response
 to a user request, shrinking the capacity from 4 to 3.</Cause>
        <StartTime>2015-06-13T22:35:50.884Z</StartTime>
        <Details>{"Availability Zone":"us-east-1a","SubnetID":"subnet-12345678"}</Details>
        <StatusCode>InProgress</StatusCode>
      </member>
    </Activities>
  </EnterStandbyResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</EnterStandbyResponse>
```

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

# ExecutePolicy

Executes the specified policy.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**BreachThreshold**

The breach threshold for the alarm.

Conditional: This parameter is required if the policy type is `StepScaling` and not supported otherwise.

Type: Double

Required: No

**HonorCooldown**

Indicates whether Amazon EC2 Auto Scaling waits for the cooldown period to complete before executing the policy.

This parameter is not supported if the policy type is `StepScaling` or `TargetTrackingScaling`.

For more information, see Scaling Cooldowns in the *Amazon EC2 Auto Scaling User Guide*.

Type: Boolean

Required: No

**MetricValue**

The metric value to compare to `BreachThreshold`. This enables you to execute a policy of type `StepScaling` and determine which step adjustment to use. For example, if the breach threshold is 50 and you want to use a step adjustment with a lower bound of 0 and an upper bound of 10, you can set the metric value to 59.

If you specify a metric value that doesn't correspond to a step adjustment for the policy, the call returns an error.

Conditional: This parameter is required if the policy type is `StepScaling` and not supported otherwise.

Type: Double

Required: No

**PolicyName**

The name or ARN of the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ScalingActivityInProgress**

The operation can't be performed because there are scaling activities in progress.

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

# ExitStandby

Moves the specified instances out of the standby state.

After you put the instances back in service, the desired capacity is incremented.

For more information, see Temporarily Removing Instances from Your Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceIds.member.N**

The IDs of the instances. You can specify up to 20 instances.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Response Elements

The following element is returned by the service.

**Activities.member.N**

The activities related to moving instances out of `Standby` mode.

Type: Array of Activity (p. 148) objects

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=ExitStandby
&AutoScalingGroupName=my-asg
&InstanceIds.member.1=i-5b73d709
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<ExitStandbyResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <ExitStandbyResult>
    <Activities>
      <member>
        <ActivityId>12345678-1234-1234-1234-123456789012</ActivityId>
        <AutoScalingGroupName>my-asg</AutoScalingGroupName>
        <Description>Moving EC2 instance out of Standby: i-12345678</Description>
        <Progress>30</Progress>
        <Cause>At 2015-06-13T22:43:53Z instance i-5b73d709 was moved out of standby in
 response to a user request, increasing the capacity from 3 to 4.</Cause>
        <StartTime>2015-06-13T22:43:53.523Z</StartTime>
        <Details>{"Availability Zone":"us-east-1a","SubnetID":"subnet-12345678"}</Details>
        <StatusCode>PreInService</StatusCode>
      </member>
    </Activities>
  </ExitStandbyResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</ExitStandbyResponse>
```

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

# PutLifecycleHook

Creates or updates a lifecycle hook for the specified Auto Scaling group.

A lifecycle hook tells Amazon EC2 Auto Scaling to perform an action on an instance when the instance launches (before it is put into service) or as the instance terminates (before it is fully terminated).

This step is a part of the procedure for adding a lifecycle hook to an Auto Scaling group:

1. (Optional) Create a Lambda function and a rule that allows CloudWatch Events to invoke your Lambda function when Amazon EC2 Auto Scaling launches or terminates instances.
2. (Optional) Create a notification target and an IAM role. The target can be either an Amazon SQS queue or an Amazon SNS topic. The role allows Amazon EC2 Auto Scaling to publish lifecycle notifications to the target.
3. **Create the lifecycle hook. Specify whether the hook is used when the instances launch or terminate.**
4. If you need more time, record the lifecycle action heartbeat to keep the instance in a pending state using RecordLifecycleActionHeartbeat (p. 126).
5. If you finish before the timeout period ends, complete the lifecycle action using CompleteLifecycleAction (p. 16).

For more information, see Amazon EC2 Auto Scaling Lifecycle Hooks in the *Amazon EC2 Auto Scaling User Guide*.

If you exceed your maximum limit of lifecycle hooks, which by default is 50 per Auto Scaling group, the call fails.

You can view the lifecycle hooks for an Auto Scaling group using DescribeLifecycleHooks (p. 63). If you are no longer using a lifecycle hook, you can delete it using DeleteLifecycleHook (p. 38).

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**DefaultResult**

Defines the action the Auto Scaling group should take when the lifecycle hook timeout elapses or if an unexpected failure occurs. This parameter can be either `CONTINUE` or `ABANDON`. The default value is `ABANDON`.

Type: String

Required: No

**HeartbeatTimeout**

The maximum time, in seconds, that can elapse before the lifecycle hook times out. The range is from `30` to `7200` seconds. The default value is `3600` seconds (1 hour).

If the lifecycle hook times out, Amazon EC2 Auto Scaling performs the action that you specified in the `DefaultResult` parameter. You can prevent the lifecycle hook from timing out by calling RecordLifecycleActionHeartbeat (p. 126).

Type: Integer

Required: No

**LifecycleHookName**

The name of the lifecycle hook.

Type: String

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

Pattern: `[A-Za-z0-9\-_\/]+`

Required: Yes

**LifecycleTransition**

The instance state to which you want to attach the lifecycle hook. The valid values are:

- autoscaling:EC2_INSTANCE_LAUNCHING
- autoscaling:EC2_INSTANCE_TERMINATING

Conditional: This parameter is required for new lifecycle hooks, but optional when updating existing hooks.

Type: String

Required: No

**NotificationMetadata**

Additional information that you want to include any time Amazon EC2 Auto Scaling sends a message to the notification target.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1023.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**NotificationTargetARN**

The ARN of the notification target that Amazon EC2 Auto Scaling uses to notify you when an instance is in the transition state for the lifecycle hook. This target can be either an SQS queue or an SNS topic.

If you specify an empty string, this overrides the current ARN.

This operation uses the JSON format when sending notifications to an Amazon SQS queue, and an email key-value pair format when sending notifications to an Amazon SNS topic.

When you specify a notification target, Amazon EC2 Auto Scaling sends it a test message. Test messages contain the following additional key-value pair: `"Event": "autoscaling:TEST_NOTIFICATION"`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**RoleARN**

The ARN of the IAM role that allows the Auto Scaling group to publish to the specified notification target, for example, an Amazon SNS topic or an Amazon SQS queue.

Conditional: This parameter is required for new lifecycle hooks, but optional when updating existing hooks.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
http://autoscaling.amazonaws.com/?Action=PutLifecycleHook
&LifecycleHookName=my-launch-hook
&AutoScalingGroupName=my-asg
&LifecycleTransition=autoscaling:EC2_INSTANCE_LAUNCHING
&NotificationTargetARN=arn:aws:sqs:us-east-1:123456789012:my-queue
&RoleARN=arn:aws:iam::123456789012:role/my-auto-scaling-role
&Version=2011-01-01
```

```
&AUTHPARAMS
```

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

# PutNotificationConfiguration

Configures an Auto Scaling group to send notifications when specified events take place. Subscribers to the specified topic can have messages delivered to an endpoint such as a web server or an email address.

This configuration overwrites any existing configuration.

For more information, see Getting Amazon SNS Notifications When Your Auto Scaling Group Scales in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**NotificationTypes.member.N**

The type of event that causes the notification to be sent. For more information about notification types supported by Amazon EC2 Auto Scaling, see DescribeAutoScalingNotificationTypes (p. 58).

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**TopicARN**

The Amazon Resource Name (ARN) of the Amazon Simple Notification Service (Amazon SNS) topic.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=PutNotificationConfiguration
&AutoScalingGroupName=my-asg
&TopicARN=arn:aws:us-east-1:123456789012:my-sns-topic
&NotificationTypes.member.1=autoscaling:EC2_INSTANCE_LAUNCH
&Version=2011-01-01
&AUTHPARAMS
```

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

# PutScalingPolicy

Creates or updates a scaling policy for an Auto Scaling group. To update an existing scaling policy, use the existing policy name and set the parameters to change. Any existing parameter not changed in an update to an existing policy is not changed in this update request.

For more information about using scaling policies to scale your Auto Scaling group automatically, see Dynamic Scaling in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AdjustmentType**

Specifies whether the `ScalingAdjustment` parameter is an absolute number or a percentage of the current capacity. The valid values are `ChangeInCapacity`, `ExactCapacity`, and `PercentChangeInCapacity`.

Valid only if the policy type is `StepScaling` or `SimpleScaling`. For more information, see Scaling Adjustment Types in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**Cooldown**

The amount of time, in seconds, after a scaling activity completes before any further dynamic scaling activities can start. If this parameter is not specified, the default cooldown period for the group applies.

Valid only if the policy type is `SimpleScaling`. For more information, see Scaling Cooldowns in the *Amazon EC2 Auto Scaling User Guide*.

Type: Integer

Required: No

**EstimatedInstanceWarmup**

The estimated time, in seconds, until a newly launched instance can contribute to the CloudWatch metrics. The default is to use the value specified for the default cooldown period for the group.

Valid only if the policy type is `StepScaling` or `TargetTrackingScaling`.

Type: Integer

Required: No

**MetricAggregationType**

The aggregation type for the CloudWatch metrics. The valid values are `Minimum`, `Maximum`, and `Average`. If the aggregation type is null, the value is treated as `Average`.

Valid only if the policy type is `StepScaling`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MinAdjustmentMagnitude**

The minimum number of instances to scale. If the value of `AdjustmentType` is `PercentChangeInCapacity`, the scaling policy changes the `DesiredCapacity` of the Auto Scaling group by at least this many instances. Otherwise, the error is `ValidationError`.

This property replaces the `MinAdjustmentStep` property. For example, suppose that you create a step scaling policy to scale out an Auto Scaling group by 25 percent and you specify a `MinAdjustmentMagnitude` of 2. If the group has 4 instances and the scaling policy is performed, 25 percent of 4 is 1. However, because you specified a `MinAdjustmentMagnitude` of 2, Amazon EC2 Auto Scaling scales out the group by 2 instances.

Valid only if the policy type is `SimpleScaling` or `StepScaling`.

Type: Integer

Required: No

**MinAdjustmentStep**

*This parameter has been deprecated.*

Available for backward compatibility. Use `MinAdjustmentMagnitude` instead.

Type: Integer

Required: No

**PolicyName**

The name of the policy.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**PolicyType**

The policy type. The valid values are `SimpleScaling`, `StepScaling`, and `TargetTrackingScaling`. If the policy type is null, the value is treated as `SimpleScaling`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ScalingAdjustment**

The amount by which a simple scaling policy scales the Auto Scaling group in response to an alarm breach. The adjustment is based on the value that you specified in the `AdjustmentType` parameter (either an absolute number or a percentage). A positive value adds to the current capacity and a negative value subtracts from the current capacity. For exact capacity, you must specify a positive value.

Conditional: If you specify `SimpleScaling` for the policy type, you must specify this parameter. (Not used with any other policy type.)

Type: Integer

Required: No

**StepAdjustments.member.N**

A set of adjustments that enable you to scale based on the size of the alarm breach.

Conditional: If you specify `StepScaling` for the policy type, you must specify this parameter. (Not used with any other policy type.)

Type: Array of StepAdjustment (p. 205) objects

Required: No

**TargetTrackingConfiguration**

A target tracking scaling policy. Includes support for predefined or customized metrics.

Conditional: If you specify `TargetTrackingScaling` for the policy type, you must specify this parameter. (Not used with any other policy type.)

Type: TargetTrackingConfiguration (p. 212) object

Required: No

# Response Elements

The following elements are returned by the service.

**Alarms.member.N**

The CloudWatch alarms created for the target tracking scaling policy.

Type: Array of Alarm (p. 151) objects

**PolicyARN**

The Amazon Resource Name (ARN) of the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=PutScalingPolicy
&AutoScalingGroupName=my-asg
&ScalingAdjustment=30
&AdjustmentType=PercentChangeInCapacity
&PolicyName=my-scaleout-policy
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<PutScalingPolicyResponse xmlns="http://autoscaling.amazonaws.com/doc/2011-01-01/">
  <PutScalingPolicyResult>
    <PolicyARN>arn:aws:autoscaling:us-
east-1:123456789012:scalingPolicy:b0dcf5e8-02e6-4e31-9719-0675dEXAMPLE:autoScalingGroupName/
my-asg:policyName/my-scaleout-policy</PolicyARN>
  </PutScalingPolicyResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</PutScalingPolicyResponse>
```

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

# PutScheduledUpdateGroupAction

Creates or updates a scheduled scaling action for an Auto Scaling group. If you leave a parameter unspecified when updating a scheduled scaling action, the corresponding value remains unchanged.

For more information, see Scheduled Scaling in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**DesiredCapacity**

The number of EC2 instances that should be running in the Auto Scaling group.

Type: Integer

Required: No

**EndTime**

The date and time for the recurring schedule to end. Amazon EC2 Auto Scaling does not perform the action after this time.

Type: Timestamp

Required: No

**MaxSize**

The maximum number of instances in the Auto Scaling group.

Type: Integer

Required: No

**MinSize**

The minimum number of instances in the Auto Scaling group.

Type: Integer

Required: No

**Recurrence**

The recurring schedule for this action, in Unix cron syntax format. This format consists of five fields separated by white spaces: [Minute] [Hour] [Day_of_Month] [Month_of_Year] [Day_of_Week]. The value must be in quotes (for example, `"30 0 1 1,6,12 *"`). For more information about this format, see Crontab.

When `StartTime` and `EndTime` are specified with `Recurrence`, they form the boundaries of when the recurring action starts and stops.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ScheduledActionName**

The name of this scaling action.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**StartTime**

The date and time for this action to start, in YYYY-MM-DDThh:mm:ssZ format in UTC/GMT only and in quotes (for example, `"2019-06-01T00:00:00Z"`).

If you specify `Recurrence` and `StartTime`, Amazon EC2 Auto Scaling performs the action at this time, and then performs the action based on the specified recurrence.

If you try to schedule your action in the past, Amazon EC2 Auto Scaling returns an error message.

Type: Timestamp

Required: No

**Time**

This parameter is no longer used.

Type: Timestamp

Required: No

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**AlreadyExists**

You already have an Auto Scaling group or launch configuration with this name.

HTTP Status Code: 400

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Examples

## Example 1: Schedule based on a specific date and time

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=PutScheduledUpdateGroupAction
&AutoScalingGroupName=my-asg
&ScheduledActionName=scaleout
&StartTime=2019-05-25T08:00:00Z
&DesiredCapacity=3
&Version=2011-01-01
&AUTHPARAMS
```

## Example 2: Recurring Schedule

### Sample Request

```
https://autoscaling.amazonaws.com/?Action="PutScheduledUpdateGroupAction
&AutoScalingGroupName=my-asg
&ScheduledActionName=scaleout-schedule-year
&Recurrence="30 0 1 1,6,12 *"
&DesiredCapacity=3
&Version=2011-01-01
&AUTHPARAMS
```

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

# RecordLifecycleActionHeartbeat

Records a heartbeat for the lifecycle action associated with the specified token or instance. This extends the timeout by the length of time defined using PutLifecycleHook (p. 112).

This step is a part of the procedure for adding a lifecycle hook to an Auto Scaling group:

1. (Optional) Create a Lambda function and a rule that allows CloudWatch Events to invoke your Lambda function when Amazon EC2 Auto Scaling launches or terminates instances.
2. (Optional) Create a notification target and an IAM role. The target can be either an Amazon SQS queue or an Amazon SNS topic. The role allows Amazon EC2 Auto Scaling to publish lifecycle notifications to the target.
3. Create the lifecycle hook. Specify whether the hook is used when the instances launch or terminate.
4. **If you need more time, record the lifecycle action heartbeat to keep the instance in a pending state.**
5. If you finish before the timeout period ends, complete the lifecycle action.

For more information, see Auto Scaling Lifecycle in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceId**

The ID of the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LifecycleActionToken**

A token that uniquely identifies a specific lifecycle action associated with an instance. Amazon EC2 Auto Scaling sends this token to the notification target that you specified when you created the lifecycle hook.

Type: String

Length Constraints: Fixed length of 36.

Required: No

**LifecycleHookName**

The name of the lifecycle hook.

Type: String

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

Pattern: `[A-Za-z0-9\-_\/]+`

Required: Yes

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

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

# ResumeProcesses

Resumes the specified suspended automatic scaling processes, or all suspended process, for the specified Auto Scaling group.

For more information, see Suspending and Resuming Scaling Processes in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ScalingProcesses.member.N**

One or more of the following processes. If you omit this parameter, all processes are specified.

- `Launch`
- `Terminate`
- `HealthCheck`
- `ReplaceUnhealthy`
- `AZRebalance`
- `AlarmNotification`
- `ScheduledActions`
- `AddToLoadBalancer`

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ResourceInUse**

The operation can't be performed because the resource is in use.

HTTP Status Code: 400

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=ResumeProcesses
&AutoScalingGroupName=my-asg
&ScalingProcesses.member.1=AlarmNotification
&Version=2011-01-01
&AUTHPARAMS
```

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

# SetDesiredCapacity

Sets the size of the specified Auto Scaling group.

For more information about desired capacity, see What Is Amazon EC2 Auto Scaling? in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**DesiredCapacity**

The number of EC2 instances that should be running in the Auto Scaling group.

Type: Integer

Required: Yes

**HonorCooldown**

Indicates whether Amazon EC2 Auto Scaling waits for the cooldown period to complete before initiating a scaling activity to set your Auto Scaling group to its new capacity. By default, Amazon EC2 Auto Scaling does not honor the cooldown period during manual scaling activities.

Type: Boolean

Required: No

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ScalingActivityInProgress**

The operation can't be performed because there are scaling activities in progress.

HTTP Status Code: 400

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=SetDesiredCapacity
&AutoScalingGroupName=my-asg
&HonorCooldown=false
&DesiredCapacity=2
&Version=2011-01-01
&AUTHPARAMS
```

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

# SetInstanceHealth

Sets the health status of the specified instance.

For more information, see Health Checks for Auto Scaling Instances in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**HealthStatus**

The health status of the instance. Set to `Healthy` to have the instance remain in service. Set to `Unhealthy` to have the instance be out of service. Amazon EC2 Auto Scaling terminates and replaces the unhealthy instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceId**

The ID of the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ShouldRespectGracePeriod**

If the Auto Scaling group of the specified instance has a `HealthCheckGracePeriod` specified for the group, by default, this call respects the grace period. Set this to `False`, to have the call not respect the grace period associated with the group.

For more information about the health check grace period, see CreateAutoScalingGroup (p. 19).

Type: Boolean

Required: No

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=SetInstanceHealth
&InstanceId=i-12345678
&HealthStatus=Unhealthy
&Version=2011-01-01
&AUTHPARAMS
```

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

# SetInstanceProtection

Updates the instance protection settings of the specified instances.

For more information about preventing instances that are part of an Auto Scaling group from terminating on scale in, see Instance Protection in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceIds.member.N**

One or more instance IDs.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ProtectedFromScaleIn**

Indicates whether the instance is protected from termination by Amazon EC2 Auto Scaling when scaling in.

Type: Boolean

Required: Yes

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**LimitExceeded**

You have already reached a limit for your Amazon EC2 Auto Scaling resources (for example, Auto Scaling groups, launch configurations, or lifecycle hooks). For more information, see DescribeAccountLimits (p. 48).

HTTP Status Code: 400

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=SetInstanceProtection
&AutoScalingGroupName=my-asg
&InstanceIds.member.1=i-12345678
&ProtectedFromScaleIn=false
&Version=2011-01-01
&AUTHPARAMS
```

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

# SuspendProcesses

Suspends the specified automatic scaling processes, or all processes, for the specified Auto Scaling group.

If you suspend either the `Launch` or `Terminate` process types, it can prevent other process types from functioning properly.

To resume processes that have been suspended, use ResumeProcesses (p. 128).

For more information, see Suspending and Resuming Scaling Processes in the *Amazon EC2 Auto Scaling User Guide*.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ScalingProcesses.member.N**

One or more of the following processes. If you omit this parameter, all processes are specified.

- `Launch`
- `Terminate`
- `HealthCheck`
- `ReplaceUnhealthy`
- `AZRebalance`
- `AlarmNotification`
- `ScheduledActions`
- `AddToLoadBalancer`

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ResourceInUse**

The operation can't be performed because the resource is in use.

HTTP Status Code: 400

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=SuspendProcesses
&AutoScalingGroupName=my-asg
&ScalingProcesses.member.1=AlarmNotification
&Version=2011-01-01
&AUTHPARAMS
```

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

# TerminateInstanceInAutoScalingGroup

Terminates the specified instance and optionally adjusts the desired group size.

This call simply makes a termination request. The instance is not terminated immediately.

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**InstanceId**

The ID of the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ShouldDecrementDesiredCapacity**

Indicates whether terminating the instance also decrements the size of the Auto Scaling group.

Type: Boolean

Required: Yes

## Response Elements

The following element is returned by the service.

**Activity**

A scaling activity.

Type: Activity (p. 148) object

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ScalingActivityInProgress**

The operation can't be performed because there are scaling activities in progress.

HTTP Status Code: 400

# Example

## Sample Request

```
https://autoscaling.amazonaws.com/?Action=TerminateInstanceInAutoScalingGroup
&InstanceId=i-12345678
&ShouldDecrementDesiredCapacity=true
&Version=2011-01-01
&AUTHPARAMS
```

## Sample Response

```
<TerminateInstanceInAutoScalingGroupResponse xmlns="http://autoscaling.amazonaws.com/
doc/2011-01-01/">
  <TerminateInstanceInAutoScalingGroupResult>
    <Activity>
      <ActivityId>12345678-1234-1234-1234-123456789012</ActivityId>
      <Description>Terminating EC2 instance: i-12345678</Description>
      <Progress>0</Progress>
      <Cause>At 2015-06-14T00:07:30Z instance i-12345678 was taken out of service in
 response to a user request, shrinking the capacity from 4 to 3.</Cause>
      <StartTime>2015-06-14T00:07:30.280Z</StartTime>
      <Details>{"Availability Zone":"us-east-1a","SubnetID":"subnet-12345678"}</Details>
      <StatusCode>InProgress</StatusCode>
    </Activity>
  </TerminateInstanceInAutoScalingGroupResult>
  <ResponseMetadata>
    <RequestId>7c6e177f-f082-11e1-ac58-3714bEXAMPLE</RequestId>
  </ResponseMetadata>
</TerminateInstanceInAutoScalingGroupResponse>
```

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

# UpdateAutoScalingGroup

Updates the configuration for the specified Auto Scaling group.

To update an Auto Scaling group, specify the name of the group and the parameter that you want to change. Any parameters that you don't specify are not changed by this update request. The new settings take effect on any scaling activities after this call returns.

If you associate a new launch configuration or template with an Auto Scaling group, all new instances will get the updated configuration. Existing instances continue to run with the configuration that they were originally launched with. When you update a group to specify a mixed instances policy instead of a launch configuration or template, existing instances may be replaced to match the new purchasing options that you specified in the policy. For example, if the group currently has 100% On-Demand capacity and the policy specifies 50% Spot capacity, this means that half of your instances will be gradually terminated and relaunched as Spot Instances. When replacing instances, Amazon EC2 Auto Scaling launches new instances before terminating the old ones, so that updating your group does not compromise the performance or availability of your application.

Note the following about changing `DesiredCapacity`, `MaxSize`, or `MinSize`:

- If a scale-in event occurs as a result of a new `DesiredCapacity` value that is lower than the current size of the group, the Auto Scaling group uses its termination policy to determine which instances to terminate.
- If you specify a new value for `MinSize` without specifying a value for `DesiredCapacity`, and the new `MinSize` is larger than the current size of the group, this sets the group's `DesiredCapacity` to the new `MinSize` value.
- If you specify a new value for `MaxSize` without specifying a value for `DesiredCapacity`, and the new `MaxSize` is smaller than the current size of the group, this sets the group's `DesiredCapacity` to the new `MaxSize` value.

To see which parameters have been set, use DescribeAutoScalingGroups (p. 52). You can also view the scaling policies for an Auto Scaling group using DescribePolicies (p. 77). If the group has scaling policies, you can update them using PutScalingPolicy (p. 118).

## Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 213).

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**AvailabilityZones.member.N**

One or more Availability Zones for the group.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**DefaultCooldown**

The amount of time, in seconds, after a scaling activity completes before another scaling activity can start. The default value is `300`. This cooldown period is not used when a scaling-specific cooldown is specified.

Cooldown periods are not supported for target tracking scaling policies, step scaling policies, or scheduled scaling. For more information, see Scaling Cooldowns in the *Amazon EC2 Auto Scaling User Guide*.

Type: Integer

Required: No

**DesiredCapacity**

The number of EC2 instances that should be running in the Auto Scaling group. This number must be greater than or equal to the minimum size of the group and less than or equal to the maximum size of the group.

Type: Integer

Required: No

**HealthCheckGracePeriod**

The amount of time, in seconds, that Amazon EC2 Auto Scaling waits before checking the health status of an EC2 instance that has come into service. The default value is `0`.

For more information, see Health Check Grace Period in the *Amazon EC2 Auto Scaling User Guide*.

Conditional: This parameter is required if you are adding an `ELB` health check.

Type: Integer

Required: No

**HealthCheckType**

The service to use for the health checks. The valid values are `EC2` and `ELB`. If you configure an Auto Scaling group to use ELB health checks, it considers the instance unhealthy if it fails either the EC2 status checks or the load balancer health checks.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchConfigurationName**

The name of the launch configuration. If you specify `LaunchConfigurationName` in your update request, you can't specify `LaunchTemplate` or `MixedInstancesPolicy`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchTemplate**

The launch template and version to use to specify the updates. If you specify `LaunchTemplate` in your update request, you can't specify `LaunchConfigurationName` or `MixedInstancesPolicy`.

Type: LaunchTemplateSpecification (p. 182) object

Required: No

**MaxInstanceLifetime**

The maximum amount of time, in seconds, that an instance can be in service.

For more information, see Replacing Auto Scaling Instances Based on Maximum Instance Lifetime in the *Amazon EC2 Auto Scaling User Guide*.

Valid Range: Minimum value of 604800.

Type: Integer

Required: No

**MaxSize**

The maximum size of the Auto Scaling group.

Type: Integer

Required: No

**MinSize**

The minimum size of the Auto Scaling group.

Type: Integer

Required: No

**MixedInstancesPolicy**

An embedded object that specifies a mixed instances policy.

In your call to `UpdateAutoScalingGroup`, you can make changes to the policy that is specified. All optional parameters are left unchanged if not specified.

For more information, see Auto Scaling Groups with Multiple Instance Types and Purchase Options in the *Amazon EC2 Auto Scaling User Guide*.

Type: MixedInstancesPolicy (p. 194) object

Required: No

**NewInstancesProtectedFromScaleIn**

Indicates whether newly launched instances are protected from termination by Amazon EC2 Auto Scaling when scaling in.

For more information about preventing instances from terminating on scale in, see Instance Protection in the *Amazon EC2 Auto Scaling User Guide*.

Type: Boolean

Required: No

**PlacementGroup**

The name of the placement group into which to launch your instances, if any. A placement group is a logical grouping of instances within a single Availability Zone. You cannot specify multiple Availability Zones and a placement group. For more information, see Placement Groups in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ServiceLinkedRoleARN**

The Amazon Resource Name (ARN) of the service-linked role that the Auto Scaling group uses to call other AWS services on your behalf. For more information, see Service-Linked Roles in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**TerminationPolicies.member.N**

A standalone termination policy or a list of termination policies used to select the instance to terminate. The policies are executed in the order that they are listed.

For more information, see Controlling Which Instances Auto Scaling Terminates During Scale In in the *Amazon EC2 Auto Scaling User Guide*.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**VPCZoneIdentifier**

A comma-separated list of subnet IDs for virtual private cloud (VPC).

If you specify `VPCZoneIdentifier` with `AvailabilityZones`, the subnets that you specify for this parameter must reside in those Availability Zones.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 215).

**ResourceContention**

You already have a pending update to an Amazon EC2 Auto Scaling resource (for example, an Auto Scaling group, instance, or load balancer).

HTTP Status Code: 500

**ScalingActivityInProgress**

The operation can't be performed because there are scaling activities in progress.

HTTP Status Code: 400

**ServiceLinkedRoleFailure**

The service-linked role is not yet ready for use.

HTTP Status Code: 500

# Examples

## Example 1: Update an existing Auto Scaling group with an Elastic Load Balancing health check

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=UpdateAutoScalingGroup
&HealthCheckType=ELB
&HealthCheckGracePeriod=300
&AutoScalingGroupName=my-asg
&Version=2011-01-01
&AUTHPARAMS
```

## Example 2: Update an existing Auto Scaling group with a new Availability Zone

### Sample Request

```
https://autoscaling.amazonaws.com/?Action=UpdateAutoScalingGroup
&AutoScalingGroupName=my-asg-lbs
&AvailabilityZones.member.1=us-east-1a
&AvailabilityZones.member.2=us-east-1b
&AvailabilityZones.member.3=us-east-1c
&MinSize=3
&Version=2011-01-01
&AUTHPARAMS
```

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

# Data Types

The Auto Scaling 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:

- TagDescription (p. 210)
- TargetTrackingConfiguration (p. 212)

# Activity

Describes scaling activity, which is a long-running process that represents a change to your Auto Scaling group, such as changing its size or replacing an instance.

## Contents

**ActivityId**

The ID of the activity.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**Cause**

The reason the activity began.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1023.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**Description**

A friendly, more verbose description of the activity.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Details**

The details about the activity.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**EndTime**

The end time of the activity.

Type: Timestamp

Required: No

**Progress**

A value between 0 and 100 that indicates the progress of the activity.

Type: Integer

Required: No

**StartTime**

The start time of the activity.

Type: Timestamp

Required: Yes

**StatusCode**

The current status of the activity.

Type: String

Valid Values: `PendingSpotBidPlacement | WaitingForSpotInstanceRequestId | WaitingForSpotInstanceId | WaitingForInstanceId | PreInService | InProgress | WaitingForELBConnectionDraining | MidLifecycleAction | WaitingForInstanceWarmup | Successful | Failed | Cancelled`

Required: Yes

**StatusMessage**

A friendly, more verbose description of the activity status.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# AdjustmentType

Describes a policy adjustment type.

## Contents

**AdjustmentType**

The policy adjustment type. The valid values are `ChangeInCapacity`, `ExactCapacity`, and `PercentChangeInCapacity`.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# Alarm

Describes an alarm.

## Contents

**AlarmARN**

The Amazon Resource Name (ARN) of the alarm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**AlarmName**

The name of the alarm.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# AutoScalingGroup

Describes an Auto Scaling group.

## Contents

**AutoScalingGroupARN**

The Amazon Resource Name (ARN) of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**AvailabilityZones.member.N**

One or more Availability Zones for the group.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**CreatedTime**

The date and time the group was created.

Type: Timestamp

Required: Yes

**DefaultCooldown**

The amount of time, in seconds, after a scaling activity completes before another scaling activity can start.

Type: Integer

Required: Yes

**DesiredCapacity**

The desired size of the group.

Type: Integer

Required: Yes

**EnabledMetrics.member.N**

The metrics enabled for the group.

Type: Array of EnabledMetric (p. 166) objects

Required: No

**HealthCheckGracePeriod**

The amount of time, in seconds, that Amazon EC2 Auto Scaling waits before checking the health status of an EC2 instance that has come into service.

Type: Integer

Required: No

**HealthCheckType**

The service to use for the health checks. The valid values are `EC2` and `ELB`. If you configure an Auto Scaling group to use ELB health checks, it considers the instance unhealthy if it fails either the EC2 status checks or the load balancer health checks.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**Instances.member.N**

The EC2 instances associated with the group.

Type: Array of Instance (p. 169) objects

Required: No

**LaunchConfigurationName**

The name of the associated launch configuration.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchTemplate**

The launch template for the group.

Type: LaunchTemplateSpecification (p. 182) object

Required: No

**LoadBalancerNames.member.N**

One or more load balancers associated with the group.

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MaxInstanceLifetime**

The maximum amount of time, in seconds, that an instance can be in service.

Valid Range: Minimum value of 604800.

Type: Integer

Required: No

**MaxSize**

The maximum size of the group.

Type: Integer

Required: Yes

**MinSize**

The minimum size of the group.

Type: Integer

Required: Yes

**MixedInstancesPolicy**

The mixed instances policy for the group.

Type: MixedInstancesPolicy (p. 194) object

Required: No

**NewInstancesProtectedFromScaleIn**

Indicates whether newly launched instances are protected from termination by Amazon EC2 Auto Scaling when scaling in.

Type: Boolean

Required: No

**PlacementGroup**

The name of the placement group into which to launch your instances, if any.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ServiceLinkedRoleARN**

The Amazon Resource Name (ARN) of the service-linked role that the Auto Scaling group uses to call other AWS services on your behalf.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Status**

The current state of the group when DeleteAutoScalingGroup (p. 34) is in progress.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**SuspendedProcesses.member.N**

The suspended processes associated with the group.

Type: Array of SuspendedProcess (p. 207) objects

Required: No

**Tags.member.N**

The tags for the group.

Type: Array of TagDescription (p. 210) objects

Required: No

**TargetGroupARNs.member.N**

The Amazon Resource Names (ARN) of the target groups for your load balancer.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 511.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**TerminationPolicies.member.N**

The termination policies for the group.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**VPCZoneIdentifier**

One or more subnet IDs, if applicable, separated by commas.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# AutoScalingInstanceDetails

Describes an EC2 instance associated with an Auto Scaling group.

## Contents

**AutoScalingGroupName**

The name of the Auto Scaling group for the instance.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**AvailabilityZone**

The Availability Zone for the instance.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**HealthStatus**

The last reported health status of this instance. "Healthy" means that the instance is healthy and should remain in service. "Unhealthy" means that the instance is unhealthy and Amazon EC2 Auto Scaling should terminate and replace it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceId**

The ID of the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceType**

The instance type of the EC2 instance.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchConfigurationName**

The launch configuration used to launch the instance. This value is not available if you attached the instance to the Auto Scaling group.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchTemplate**

The launch template for the instance.

Type: LaunchTemplateSpecification (p. 182) object

Required: No

**LifecycleState**

The lifecycle state for the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**ProtectedFromScaleIn**

Indicates whether the instance is protected from termination by Amazon EC2 Auto Scaling when scaling in.

Type: Boolean

Required: Yes

**WeightedCapacity**

The number of capacity units contributed by the instance based on its instance type.

Valid Range: Minimum value of 1. Maximum value of 999.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 3.

Pattern: `^[\u0031-\u0039][\u0030-\u0039]{0,2}$`

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
- AWS SDK for Ruby V2

# BlockDeviceMapping

Describes a block device mapping.

## Contents

**DeviceName**

The device name exposed to the EC2 instance (for example, `/dev/sdh` or `xvdh`). For more information, see Device Naming on Linux Instances in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**Ebs**

The information about the Amazon EBS volume.

Type: Ebs (p. 164) object

Required: No

**NoDevice**

Suppresses a device mapping.

If this parameter is true for the root device, the instance might fail the EC2 health check. In that case, Amazon EC2 Auto Scaling launches a replacement instance.

Type: Boolean

Required: No

**VirtualName**

The name of the virtual device (for example, `ephemeral0`).

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# CustomizedMetricSpecification

Represents a CloudWatch metric of your choosing for a target tracking scaling policy to use with Amazon EC2 Auto Scaling.

To create your customized metric specification:

- Add values for each required parameter from CloudWatch. You can use an existing metric, or a new metric that you create. To use your own metric, you must first publish the metric to CloudWatch. For more information, see Publish Custom Metrics in the *Amazon CloudWatch User Guide*.
- Choose a metric that changes proportionally with capacity. The value of the metric should increase or decrease in inverse proportion to the number of capacity units. That is, the value of the metric should decrease when capacity increases.

For more information about CloudWatch, see Amazon CloudWatch Concepts.

## Contents

**Dimensions.member.N**

The dimensions of the metric.

Conditional: If you published your metric with dimensions, you must specify the same dimensions in your scaling policy.

Type: Array of MetricDimension (p. 192) objects

Required: No

**MetricName**

The name of the metric.

Type: String

Required: Yes

**Namespace**

The namespace of the metric.

Type: String

Required: Yes

**Statistic**

The statistic of the metric.

Type: String

Valid Values: `Average | Minimum | Maximum | SampleCount | Sum`

Required: Yes

**Unit**

The unit of the metric.

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
- AWS SDK for Ruby V2

# Ebs

Describes an Amazon EBS volume. Used in combination with BlockDeviceMapping (p. 160).

## Contents

**DeleteOnTermination**

Indicates whether the volume is deleted on instance termination. For Amazon EC2 Auto Scaling, the default value is `true`.

Type: Boolean

Required: No

**Encrypted**

Specifies whether the volume should be encrypted. Encrypted EBS volumes can only be attached to instances that support Amazon EBS encryption. For more information, see Supported Instance Types. If your AMI uses encrypted volumes, you can also only launch it on supported instance types.

> **Note**
> If you are creating a volume from a snapshot, you cannot specify an encryption value. Volumes that are created from encrypted snapshots are automatically encrypted, and volumes that are created from unencrypted snapshots are automatically unencrypted. By default, encrypted snapshots use the AWS managed CMK that is used for EBS encryption, but you can specify a custom CMK when you create the snapshot. The ability to encrypt a snapshot during copying also allows you to apply a new CMK to an already-encrypted snapshot. Volumes restored from the resulting copy are only accessible using the new CMK. Enabling encryption by default results in all EBS volumes being encrypted with the AWS managed CMK or a customer managed CMK, whether or not the snapshot was encrypted.

For more information, see Using Encryption with EBS-Backed AMIs in the *Amazon EC2 User Guide for Linux Instances* and Required CMK Key Policy for Use with Encrypted Volumes in the *Amazon EC2 Auto Scaling User Guide*.

Type: Boolean

Required: No

**Iops**

The number of I/O operations per second (IOPS) to provision for the volume. The maximum ratio of IOPS to volume size (in GiB) is 50:1. For more information, see Amazon EBS Volume Types in the *Amazon EC2 User Guide for Linux Instances*.

Conditional: This parameter is required when the volume type is `io1`. (Not used with `standard`, `gp2`, `st1`, or `sc1` volumes.)

Type: Integer

Valid Range: Minimum value of 100. Maximum value of 20000.

Required: No

**SnapshotId**

The snapshot ID of the volume to use.

Conditional: This parameter is optional if you specify a volume size. If you specify both `SnapshotId` and `VolumeSize`, `VolumeSize` must be equal or greater than the size of the snapshot.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**VolumeSize**

The volume size, in Gibibytes (GiB).

This can be a number from 1-1,024 for `standard`, 4-16,384 for `io1`, 1-16,384 for `gp2`, and 500-16,384 for `st1` and `sc1`. If you specify a snapshot, the volume size must be equal to or larger than the snapshot size.

Default: If you create a volume from a snapshot and you don't specify a volume size, the default is the snapshot size.

**Note**
At least one of VolumeSize or SnapshotId is required.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 16384.

Required: No

**VolumeType**

The volume type, which can be `standard` for Magnetic, `io1` for Provisioned IOPS SSD, `gp2` for General Purpose SSD, `st1` for Throughput Optimized HDD, or `sc1` for Cold HDD. For more information, see Amazon EBS Volume Types in the *Amazon EC2 User Guide for Linux Instances*.

Valid Values: `standard` | `io1` | `gp2` | `st1` | `sc1`

Type: String

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

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
- AWS SDK for Ruby V2

# EnabledMetric

Describes an enabled metric.

## Contents

**Granularity**

The granularity of the metric. The only valid value is `1Minute`.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Metric**

One of the following metrics:

- `GroupMinSize`
- `GroupMaxSize`
- `GroupDesiredCapacity`
- `GroupInServiceInstances`
- `GroupPendingInstances`
- `GroupStandbyInstances`
- `GroupTerminatingInstances`
- `GroupTotalInstances`

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# FailedScheduledUpdateGroupActionRequest

Describes a scheduled action that could not be created, updated, or deleted.

## Contents

**ErrorCode**

The error code.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ErrorMessage**

The error message accompanying the error code.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ScheduledActionName**

The name of the scheduled action.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# Filter

Describes a filter.

## Contents

**Name**

The name of the filter. The valid values are: `"auto-scaling-group"`, `"key"`, `"value"`, and `"propagate-at-launch"`.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Values.member.N**

The value of the filter.

Type: Array of strings

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# Instance

Describes an EC2 instance.

## Contents

**AvailabilityZone**

The Availability Zone in which the instance is running.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**HealthStatus**

The last reported health status of the instance. "Healthy" means that the instance is healthy and should remain in service. "Unhealthy" means that the instance is unhealthy and that Amazon EC2 Auto Scaling should terminate and replace it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceId**

The ID of the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 19.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceType**

The instance type of the EC2 instance.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchConfigurationName**

The launch configuration associated with the instance.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchTemplate**

The launch template for the instance.

Type: LaunchTemplateSpecification (p. 182) object

Required: No

**LifecycleState**

A description of the current lifecycle state. The `Quarantined` state is not used.

Type: String

Valid Values: `Pending | Pending:Wait | Pending:Proceed | Quarantined | InService | Terminating | Terminating:Wait | Terminating:Proceed | Terminated | Detaching | Detached | EnteringStandby | Standby`

Required: Yes

**ProtectedFromScaleIn**

Indicates whether the instance is protected from termination by Amazon EC2 Auto Scaling when scaling in.

Type: Boolean

Required: Yes

**WeightedCapacity**

The number of capacity units contributed by the instance based on its instance type.

Valid Range: Minimum value of 1. Maximum value of 999.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 3.

Pattern: `^[\u0031-\u0039][\u0030-\u0039]{0,2}$`

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
- AWS SDK for Ruby V2

# InstanceMonitoring

Describes whether detailed monitoring is enabled for the Auto Scaling instances.

## Contents

**Enabled**

If `true`, detailed monitoring is enabled. Otherwise, basic monitoring 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
- AWS SDK for Ruby V2

# InstancesDistribution

Describes an instances distribution for an Auto Scaling group with MixedInstancesPolicy (p. 194).

The instances distribution specifies the distribution of On-Demand Instances and Spot Instances, the maximum price to pay for Spot Instances, and how the Auto Scaling group allocates instance types to fulfill On-Demand and Spot capacity.

When you update `SpotAllocationStrategy`, `SpotInstancePools`, or `SpotMaxPrice`, this update action does not deploy any changes across the running Amazon EC2 instances in the group. Your existing Spot Instances continue to run as long as the maximum price for those instances is higher than the current Spot price. When scale out occurs, Amazon EC2 Auto Scaling launches instances based on the new settings. When scale in occurs, Amazon EC2 Auto Scaling terminates instances according to the group's termination policies.

## Contents

**OnDemandAllocationStrategy**

Indicates how to allocate instance types to fulfill On-Demand capacity.

The only valid value is `prioritized`, which is also the default value. This strategy uses the order of instance type overrides for the LaunchTemplate (p. 180) to define the launch priority of each instance type. The first instance type in the array is prioritized higher than the last. If all your On-Demand capacity cannot be fulfilled using your highest priority instance, then the Auto Scaling groups launches the remaining capacity using the second priority instance type, and so on.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**OnDemandBaseCapacity**

The minimum amount of the Auto Scaling group's capacity that must be fulfilled by On-Demand Instances. This base portion is provisioned first as your group scales.

Default if not set is 0. If you leave it set to 0, On-Demand Instances are launched as a percentage of the Auto Scaling group's desired capacity, per the `OnDemandPercentageAboveBaseCapacity` setting.

> **Note**
> An update to this setting means a gradual replacement of instances to maintain the specified number of On-Demand Instances for your base capacity. When replacing instances, Amazon EC2 Auto Scaling launches new instances before terminating the old ones.

Type: Integer

Required: No

**OnDemandPercentageAboveBaseCapacity**

Controls the percentages of On-Demand Instances and Spot Instances for your additional capacity beyond `OnDemandBaseCapacity`.

Default if not set is 100. If you leave it set to 100, the percentages are 100% for On-Demand Instances and 0% for Spot Instances.

**Note**
An update to this setting means a gradual replacement of instances to maintain the percentage of On-Demand Instances for your additional capacity above the base capacity. When replacing instances, Amazon EC2 Auto Scaling launches new instances before terminating the old ones.

Valid Range: Minimum value of 0. Maximum value of 100.

Type: Integer

Required: No

**SpotAllocationStrategy**

Indicates how to allocate instances across Spot Instance pools.

If the allocation strategy is `lowest-price`, the Auto Scaling group launches instances using the Spot pools with the lowest price, and evenly allocates your instances across the number of Spot pools that you specify. If the allocation strategy is `capacity-optimized`, the Auto Scaling group launches instances using Spot pools that are optimally chosen based on the available Spot capacity.

The default Spot allocation strategy for calls that you make through the API, the AWS CLI, or the AWS SDKs is `lowest-price`. The default Spot allocation strategy for the AWS Management Console is `capacity-optimized`.

Valid values: `lowest-price` | `capacity-optimized`

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**SpotInstancePools**

The number of Spot Instance pools across which to allocate your Spot Instances. The Spot pools are determined from the different instance types in the Overrides array of LaunchTemplate (p. 180). Default if not set is 2.

Used only when the Spot allocation strategy is `lowest-price`.

Valid Range: Minimum value of 1. Maximum value of 20.

Type: Integer

Required: No

**SpotMaxPrice**

The maximum price per unit hour that you are willing to pay for a Spot Instance. If you leave the value of this parameter blank (which is the default), the maximum Spot price is set at the On-Demand price.

To remove a value that you previously set, include the parameter but leave the value blank.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

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
- AWS SDK for Ruby V2

# LaunchConfiguration

Describes a launch configuration.

## Contents

**AssociatePublicIpAddress**

For Auto Scaling groups that are running in a VPC, specifies whether to assign a public IP address to the group's instances.

For more information, see Launching Auto Scaling Instances in a VPC in the *Amazon EC2 Auto Scaling User Guide*.

Type: Boolean

Required: No

**BlockDeviceMappings.member.N**

A block device mapping, which specifies the block devices for the instance.

For more information, see Block Device Mapping in the *Amazon EC2 User Guide for Linux Instances*.

Type: Array of BlockDeviceMapping (p. 160) objects

Required: No

**ClassicLinkVPCId**

The ID of a ClassicLink-enabled VPC to link your EC2-Classic instances to.

For more information, see ClassicLink in the *Amazon EC2 User Guide for Linux Instances* and Linking EC2-Classic Instances to a VPC in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ClassicLinkVPCSecurityGroups.member.N**

The IDs of one or more security groups for the VPC specified in `ClassicLinkVPCId`.

For more information, see ClassicLink in the *Amazon EC2 User Guide for Linux Instances* and Linking EC2-Classic Instances to a VPC in the *Amazon EC2 Auto Scaling User Guide*.

Type: Array of strings

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**CreatedTime**

The creation date and time for the launch configuration.

Type: Timestamp

Required: Yes

**EbsOptimized**

Specifies whether the launch configuration is optimized for EBS I/O (`true`) or not (`false`).

For more information, see Amazon EBS-Optimized Instances in the *Amazon EC2 User Guide for Linux Instances*.

Type: Boolean

Required: No

**IamInstanceProfile**

The name or the Amazon Resource Name (ARN) of the instance profile associated with the IAM role for the instance. The instance profile contains the IAM role.

For more information, see IAM Role for Applications That Run on Amazon EC2 Instances in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ImageId**

The ID of the Amazon Machine Image (AMI) to use to launch your EC2 instances.

For more information, see Finding an AMI in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**InstanceMonitoring**

Controls whether instances in this group are launched with detailed (`true`) or basic (`false`) monitoring.

For more information, see Configure Monitoring for Auto Scaling Instances in the *Amazon EC2 Auto Scaling User Guide*.

Type: InstanceMonitoring (p. 171) object

Required: No

**InstanceType**

The instance type for the instances.

For information about available instance types, see Available Instance Types in the *Amazon EC2 User Guide for Linux Instances.*

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**KernelId**

The ID of the kernel associated with the AMI.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**KeyName**

The name of the key pair.

For more information, see Amazon EC2 Key Pairs in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchConfigurationARN**

The Amazon Resource Name (ARN) of the launch configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchConfigurationName**

The name of the launch configuration.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**PlacementTenancy**

The tenancy of the instance, either `default` or `dedicated`. An instance with `dedicated` tenancy runs on isolated, single-tenant hardware and can only be launched into a VPC.

For more information, see Instance Placement Tenancy in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**RamdiskId**

The ID of the RAM disk associated with the AMI.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**SecurityGroups.member.N**

A list that contains the security groups to assign to the instances in the Auto Scaling group.

For more information, see Security Groups for Your VPC in the *Amazon Virtual Private Cloud User Guide*.

Type: Array of strings

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**SpotPrice**

The maximum hourly price to be paid for any Spot Instance launched to fulfill the request. Spot Instances are launched when the price you specify exceeds the current Spot price.

For more information, see Launching Spot Instances in Your Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

Type: String

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

Required: No

**UserData**

The Base64-encoded user data to make available to the launched EC2 instances.

For more information, see Instance Metadata and User Data in the *Amazon EC2 User Guide for Linux Instances*.

Type: String

Length Constraints: Maximum length of 21847.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# LaunchTemplate

Describes a launch template and overrides.

The overrides are used to override the instance type specified by the launch template with multiple instance types that can be used to launch On-Demand Instances and Spot Instances.

When you update the launch template or overrides, existing Amazon EC2 instances continue to run. When scale out occurs, Amazon EC2 Auto Scaling launches instances to match the new settings. When scale in occurs, Amazon EC2 Auto Scaling terminates instances according to the group's termination policies.

## Contents

**LaunchTemplateSpecification**

The launch template to use. You must specify either the launch template ID or launch template name in the request.

Type: LaunchTemplateSpecification (p. 182) object

Required: No

**Overrides.member.N**

An optional setting. Any parameters that you specify override the same parameters in the launch template. Currently, the only supported override is instance type. You can specify between 1 and 20 instance types.

Type: Array of LaunchTemplateOverrides (p. 181) 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
- AWS SDK for Ruby V2

# LaunchTemplateOverrides

Describes an override for a launch template.

## Contents

**InstanceType**

The instance type.

For information about available instance types, see Available Instance Types in the *Amazon Elastic Compute Cloud User Guide.*

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**WeightedCapacity**

The number of capacity units, which gives the instance type a proportional weight to other instance types. For example, larger instance types are generally weighted more than smaller instance types. These are the same units that you chose to set the desired capacity in terms of instances, or a performance attribute such as vCPUs, memory, or I/O.

For more information, see Instance Weighting for Amazon EC2 Auto Scaling in the *Amazon EC2 Auto Scaling User Guide*.

Valid Range: Minimum value of 1. Maximum value of 999.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 3.

Pattern: `^[\u0031-\u0039][\u0030-\u0039]{0,2}$`

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
- AWS SDK for Ruby V2

# LaunchTemplateSpecification

Describes a launch template and the launch template version.

The launch template that is specified must be configured for use with an Auto Scaling group. For more information, see Creating a Launch Template for an Auto Scaling Group in the *Amazon EC2 Auto Scaling User Guide*.

## Contents

**LaunchTemplateId**

The ID of the launch template. You must specify either a template ID or a template name.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**LaunchTemplateName**

The name of the launch template. You must specify either a template name or a template ID.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `[a-zA-Z0-9\(\)\.-/_]+`

Required: No

**Version**

The version number, `$Latest`, or `$Default`. If the value is `$Latest`, Amazon EC2 Auto Scaling selects the latest version of the launch template when launching instances. If the value is `$Default`, Amazon EC2 Auto Scaling selects the default version of the launch template when launching instances. The default value is `$Default`.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# LifecycleHook

Describes a lifecycle hook, which tells Amazon EC2 Auto Scaling that you want to perform an action whenever it launches instances or terminates instances. Used in response to DescribeLifecycleHooks (p. 63).

## Contents

**AutoScalingGroupName**

The name of the Auto Scaling group for the lifecycle hook.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**DefaultResult**

Defines the action the Auto Scaling group should take when the lifecycle hook timeout elapses or if an unexpected failure occurs. The possible values are `CONTINUE` and `ABANDON`.

Type: String

Required: No

**GlobalTimeout**

The maximum time, in seconds, that an instance can remain in a `Pending:Wait` or `Terminating:Wait` state. The maximum is 172800 seconds (48 hours) or 100 times `HeartbeatTimeout`, whichever is smaller.

Type: Integer

Required: No

**HeartbeatTimeout**

The maximum time, in seconds, that can elapse before the lifecycle hook times out. If the lifecycle hook times out, Amazon EC2 Auto Scaling performs the action that you specified in the `DefaultResult` parameter.

Type: Integer

Required: No

**LifecycleHookName**

The name of the lifecycle hook.

Type: String

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

Pattern: `[A-Za-z0-9\-_\/]+`

Required: No

**LifecycleTransition**

The state of the EC2 instance to which to attach the lifecycle hook. The following are possible values:

- autoscaling:EC2_INSTANCE_LAUNCHING
- autoscaling:EC2_INSTANCE_TERMINATING

Type: String

Required: No

**NotificationMetadata**

Additional information that is included any time Amazon EC2 Auto Scaling sends a message to the notification target.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1023.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**NotificationTargetARN**

The ARN of the target that Amazon EC2 Auto Scaling sends notifications to when an instance is in the transition state for the lifecycle hook. The notification target can be either an SQS queue or an SNS topic.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**RoleARN**

The ARN of the IAM role that allows the Auto Scaling group to publish to the specified notification target.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# LifecycleHookSpecification

Describes a lifecycle hook. Used in combination with CreateAutoScalingGroup (p. 19).

A lifecycle hook tells Amazon EC2 Auto Scaling to perform an action on an instance when the instance launches (before it is put into service) or as the instance terminates (before it is fully terminated).

This step is a part of the procedure for creating a lifecycle hook for an Auto Scaling group:

1. (Optional) Create a Lambda function and a rule that allows CloudWatch Events to invoke your Lambda function when Amazon EC2 Auto Scaling launches or terminates instances.
2. (Optional) Create a notification target and an IAM role. The target can be either an Amazon SQS queue or an Amazon SNS topic. The role allows Amazon EC2 Auto Scaling to publish lifecycle notifications to the target.
3. **Create the lifecycle hook. Specify whether the hook is used when the instances launch or terminate.**
4. If you need more time, record the lifecycle action heartbeat to keep the instance in a pending state using RecordLifecycleActionHeartbeat (p. 126).
5. If you finish before the timeout period ends, complete the lifecycle action using CompleteLifecycleAction (p. 16).

For more information, see Amazon EC2 Auto Scaling Lifecycle Hooks in the *Amazon EC2 Auto Scaling User Guide*.

You can view the lifecycle hooks for an Auto Scaling group using DescribeLifecycleHooks (p. 63). You can modify an existing lifecycle hook or create new lifecycle hooks using PutLifecycleHook (p. 112). If you are no longer using a lifecycle hook, you can delete it using DeleteLifecycleHook (p. 38).

## Contents

**DefaultResult**

Defines the action the Auto Scaling group should take when the lifecycle hook timeout elapses or if an unexpected failure occurs. The valid values are `CONTINUE` and `ABANDON`. The default value is `ABANDON`.

Type: String

Required: No

**HeartbeatTimeout**

The maximum time, in seconds, that can elapse before the lifecycle hook times out.

If the lifecycle hook times out, Amazon EC2 Auto Scaling performs the action that you specified in the `DefaultResult` parameter. You can prevent the lifecycle hook from timing out by calling RecordLifecycleActionHeartbeat (p. 126).

Type: Integer

Required: No

**LifecycleHookName**

The name of the lifecycle hook.

Type: String

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

Pattern: `[A-Za-z0-9\-_\/]+`

Required: Yes

**LifecycleTransition**

The state of the EC2 instance to which you want to attach the lifecycle hook. The valid values are:

- autoscaling:EC2_INSTANCE_LAUNCHING
- autoscaling:EC2_INSTANCE_TERMINATING

Type: String

Required: Yes

**NotificationMetadata**

Additional information that you want to include any time Amazon EC2 Auto Scaling sends a message to the notification target.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1023.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**NotificationTargetARN**

The ARN of the target that Amazon EC2 Auto Scaling sends notifications to when an instance is in the transition state for the lifecycle hook. The notification target can be either an SQS queue or an SNS topic.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**RoleARN**

The ARN of the IAM role that allows the Auto Scaling group to publish to the specified notification target, for example, an Amazon SNS topic or an Amazon SQS queue.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# LoadBalancerState

Describes the state of a Classic Load Balancer.

If you specify a load balancer when creating the Auto Scaling group, the state of the load balancer is `InService`.

If you attach a load balancer to an existing Auto Scaling group, the initial state is `Adding`. The state transitions to `Added` after all instances in the group are registered with the load balancer. If Elastic Load Balancing health checks are enabled for the load balancer, the state transitions to `InService` after at least one instance in the group passes the health check. If EC2 health checks are enabled instead, the load balancer remains in the `Added` state.

## Contents

**LoadBalancerName**

The name of the load balancer.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**State**

One of the following load balancer states:

- `Adding` - The instances in the group are being registered with the load balancer.
- `Added` - All instances in the group are registered with the load balancer.
- `InService` - At least one instance in the group passed an ELB health check.
- `Removing` - The instances in the group are being deregistered from the load balancer. If connection draining is enabled, Elastic Load Balancing waits for in-flight requests to complete before deregistering the instances.
- `Removed` - All instances in the group are deregistered from the load balancer.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# LoadBalancerTargetGroupState

Describes the state of a target group.

If you attach a target group to an existing Auto Scaling group, the initial state is `Adding`. The state transitions to `Added` after all Auto Scaling instances are registered with the target group. If Elastic Load Balancing health checks are enabled, the state transitions to `InService` after at least one Auto Scaling instance passes the health check. If EC2 health checks are enabled instead, the target group remains in the `Added` state.

## Contents

**LoadBalancerTargetGroupARN**

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

Type: String

Length Constraints: Minimum length of 1. Maximum length of 511.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**State**

The state of the target group.

- `Adding` - The Auto Scaling instances are being registered with the target group.
- `Added` - All Auto Scaling instances are registered with the target group.
- `InService` - At least one Auto Scaling instance passed an ELB health check.
- `Removing` - The Auto Scaling instances are being deregistered from the target group. If connection draining is enabled, Elastic Load Balancing waits for in-flight requests to complete before deregistering the instances.
- `Removed` - All Auto Scaling instances are deregistered from the target group.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# MetricCollectionType

Describes a metric.

## Contents

**Metric**

One of the following metrics:

- `GroupMinSize`
- `GroupMaxSize`
- `GroupDesiredCapacity`
- `GroupInServiceInstances`
- `GroupPendingInstances`
- `GroupStandbyInstances`
- `GroupTerminatingInstances`
- `GroupTotalInstances`

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# MetricDimension

Describes the dimension of a metric.

## Contents

**Name**

The name of the dimension.

Type: String

Required: Yes

**Value**

The value of the dimension.

Type: String

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
- AWS SDK for Ruby V2

# MetricGranularityType

Describes a granularity of a metric.

## Contents

**Granularity**

The granularity. The only valid value is `1Minute`.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# MixedInstancesPolicy

Describes a mixed instances policy for an Auto Scaling group. With mixed instances, your Auto Scaling group can provision a combination of On-Demand Instances and Spot Instances across multiple instance types. For more information, see Auto Scaling Groups with Multiple Instance Types and Purchase Options in the *Amazon EC2 Auto Scaling User Guide*.

You can create a mixed instances policy for a new Auto Scaling group, or you can create it for an existing group by updating the group to specify `MixedInstancesPolicy` as the top-level parameter instead of a launch configuration or template. For more information, see CreateAutoScalingGroup (p. 19) and UpdateAutoScalingGroup (p. 140).

## Contents

**InstancesDistribution**

The instances distribution to use.

If you leave this parameter unspecified, the value for each parameter in `InstancesDistribution` uses a default value.

Type: InstancesDistribution (p. 172) object

Required: No

**LaunchTemplate**

The launch template and instance types (overrides).

This parameter must be specified when creating a mixed instances policy.

Type: LaunchTemplate (p. 180) 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
- AWS SDK for Ruby V2

# NotificationConfiguration

Describes a notification.

## Contents

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**NotificationType**

One of the following event notification types:

- `autoscaling:EC2_INSTANCE_LAUNCH`
- `autoscaling:EC2_INSTANCE_LAUNCH_ERROR`
- `autoscaling:EC2_INSTANCE_TERMINATE`
- `autoscaling:EC2_INSTANCE_TERMINATE_ERROR`
- `autoscaling:TEST_NOTIFICATION`

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**TopicARN**

The Amazon Resource Name (ARN) of the Amazon Simple Notification Service (Amazon SNS) topic.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# PredefinedMetricSpecification

Represents a predefined metric for a target tracking scaling policy to use with Amazon EC2 Auto Scaling.

## Contents

**PredefinedMetricType**

The metric type. The following predefined metrics are available:

- `ASGAverageCPUUtilization` - Average CPU utilization of the Auto Scaling group.
- `ASGAverageNetworkIn` - Average number of bytes received on all network interfaces by the Auto Scaling group.
- `ASGAverageNetworkOut` - Average number of bytes sent out on all network interfaces by the Auto Scaling group.
- `ALBRequestCountPerTarget` - Number of requests completed per target in an Application Load Balancer target group.

Type: String

Valid Values: `ASGAverageCPUUtilization | ASGAverageNetworkIn | ASGAverageNetworkOut | ALBRequestCountPerTarget`

Required: Yes

**ResourceLabel**

Identifies the resource associated with the metric type. You can't specify a resource label unless the metric type is `ALBRequestCountPerTarget` and there is a target group attached to the Auto Scaling group.

The format is `app/`*`load-balancer-name`*`/`*`load-balancer-id`*`/targetgroup/`*`target-group-name`*`/`*`target-group-id`* , where

- `app/`*`load-balancer-name`*`/`*`load-balancer-id`* is the final portion of the load balancer ARN, and
- `targetgroup/`*`target-group-name`*`/`*`target-group-id`* is the final portion of the target group ARN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1023.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# ProcessType

Describes a process type.

For more information, see Scaling Processes in the *Amazon EC2 Auto Scaling User Guide*.

## Contents

**ProcessName**

One of the following processes:

- `Launch`
- `Terminate`
- `AddToLoadBalancer`
- `AlarmNotification`
- `AZRebalance`
- `HealthCheck`
- `ReplaceUnhealthy`
- `ScheduledActions`

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# ScalingPolicy

Describes a scaling policy.

## Contents

**AdjustmentType**

The adjustment type, which specifies how `ScalingAdjustment` is interpreted. The valid values are `ChangeInCapacity`, `ExactCapacity`, and `PercentChangeInCapacity`.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Alarms.member.N**

The CloudWatch alarms related to the policy.

Type: Array of Alarm (p. 151) objects

Required: No

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Cooldown**

The amount of time, in seconds, after a scaling activity completes before any further dynamic scaling activities can start.

Type: Integer

Required: No

**EstimatedInstanceWarmup**

The estimated time, in seconds, until a newly launched instance can contribute to the CloudWatch metrics.

Type: Integer

Required: No

**MetricAggregationType**

The aggregation type for the CloudWatch metrics. The valid values are `Minimum`, `Maximum`, and `Average`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**MinAdjustmentMagnitude**

The minimum number of instances to scale. If the value of `AdjustmentType` is `PercentChangeInCapacity`, the scaling policy changes the `DesiredCapacity` of the Auto Scaling group by at least this many instances. Otherwise, the error is `ValidationError`.

Type: Integer

Required: No

**MinAdjustmentStep**

*This member has been deprecated.*

Available for backward compatibility. Use `MinAdjustmentMagnitude` instead.

Type: Integer

Required: No

**PolicyARN**

The Amazon Resource Name (ARN) of the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**PolicyName**

The name of the scaling policy.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**PolicyType**

The policy type. The valid values are `SimpleScaling`, `StepScaling`, and `TargetTrackingScaling`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ScalingAdjustment**

The amount by which to scale, based on the specified adjustment type. A positive value adds to the current capacity while a negative number removes from the current capacity.

Type: Integer

Required: No

**StepAdjustments.member.N**

A set of adjustments that enable you to scale based on the size of the alarm breach.

Type: Array of StepAdjustment (p. 205) objects

Required: No

**TargetTrackingConfiguration**

A target tracking scaling policy.

Type: TargetTrackingConfiguration (p. 212) 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
- AWS SDK for Ruby V2

# ScheduledUpdateGroupAction

Describes a scheduled scaling action. Used in response to DescribeScheduledActions (p. 86).

## Contents

**AutoScalingGroupName**

The name of the Auto Scaling group.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**DesiredCapacity**

The number of instances you prefer to maintain in the group.

Type: Integer

Required: No

**EndTime**

The date and time in UTC for the recurring schedule to end. For example, `"2019-06-01T00:00:00Z"`.

Type: Timestamp

Required: No

**MaxSize**

The maximum number of instances in the Auto Scaling group.

Type: Integer

Required: No

**MinSize**

The minimum number of instances in the Auto Scaling group.

Type: Integer

Required: No

**Recurrence**

The recurring schedule for the action, in Unix cron syntax format.

When `StartTime` and `EndTime` are specified with `Recurrence`, they form the boundaries of when the recurring action starts and stops.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ScheduledActionARN**

The Amazon Resource Name (ARN) of the scheduled action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ScheduledActionName**

The name of the scheduled action.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**StartTime**

The date and time in UTC for this action to start. For example, `"2019-06-01T00:00:00Z"`.

Type: Timestamp

Required: No

**Time**

This parameter is no longer used.

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
- AWS SDK for Ruby V2

# ScheduledUpdateGroupActionRequest

Describes one or more scheduled scaling action updates for a specified Auto Scaling group. Used in combination with BatchPutScheduledUpdateGroupAction (p. 14).

When updating a scheduled scaling action, all optional parameters are left unchanged if not specified.

## Contents

**DesiredCapacity**

The number of EC2 instances that should be running in the group.

Type: Integer

Required: No

**EndTime**

The date and time for the recurring schedule to end. Amazon EC2 Auto Scaling does not perform the action after this time.

Type: Timestamp

Required: No

**MaxSize**

The maximum number of instances in the Auto Scaling group.

Type: Integer

Required: No

**MinSize**

The minimum number of instances in the Auto Scaling group.

Type: Integer

Required: No

**Recurrence**

The recurring schedule for the action, in Unix cron syntax format. This format consists of five fields separated by white spaces: [Minute] [Hour] [Day_of_Month] [Month_of_Year] [Day_of_Week]. The value must be in quotes (for example, `"30 0 1 1,6,12 *"`). For more information about this format, see Crontab.

When `StartTime` and `EndTime` are specified with `Recurrence`, they form the boundaries of when the recurring action starts and stops.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ScheduledActionName**

The name of the scaling action.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**StartTime**

The date and time for the action to start, in YYYY-MM-DDThh:mm:ssZ format in UTC/GMT only and in quotes (for example, `"2019-06-01T00:00:00Z"`).

If you specify `Recurrence` and `StartTime`, Amazon EC2 Auto Scaling performs the action at this time, and then performs the action based on the specified recurrence.

If you try to schedule the action in the past, Amazon EC2 Auto Scaling returns an error message.

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
- AWS SDK for Ruby V2

# StepAdjustment

Describes an adjustment based on the difference between the value of the aggregated CloudWatch metric and the breach threshold that you've defined for the alarm. Used in combination with PutScalingPolicy (p. 118).

For the following examples, suppose that you have an alarm with a breach threshold of 50:

- To trigger the adjustment when the metric is greater than or equal to 50 and less than 60, specify a lower bound of 0 and an upper bound of 10.
- To trigger the adjustment when the metric is greater than 40 and less than or equal to 50, specify a lower bound of -10 and an upper bound of 0.

There are a few rules for the step adjustments for your step policy:

- The ranges of your step adjustments can't overlap or have a gap.
- At most, one step adjustment can have a null lower bound. If one step adjustment has a negative lower bound, then there must be a step adjustment with a null lower bound.
- At most, one step adjustment can have a null upper bound. If one step adjustment has a positive upper bound, then there must be a step adjustment with a null upper bound.
- The upper and lower bound can't be null in the same step adjustment.

## Contents

**MetricIntervalLowerBound**

The lower bound for the difference between the alarm threshold and the CloudWatch metric. If the metric value is above the breach threshold, the lower bound is inclusive (the metric must be greater than or equal to the threshold plus the lower bound). Otherwise, it is exclusive (the metric must be greater than the threshold plus the lower bound). A null value indicates negative infinity.

Type: Double

Required: No

**MetricIntervalUpperBound**

The upper bound for the difference between the alarm threshold and the CloudWatch metric. If the metric value is above the breach threshold, the upper bound is exclusive (the metric must be less than the threshold plus the upper bound). Otherwise, it is inclusive (the metric must be less than or equal to the threshold plus the upper bound). A null value indicates positive infinity.

The upper bound must be greater than the lower bound.

Type: Double

Required: No

**ScalingAdjustment**

The amount by which to scale, based on the specified adjustment type. A positive value adds to the current capacity while a negative number removes from the current capacity.

Type: Integer

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
- AWS SDK for Ruby V2

# SuspendedProcess

Describes an automatic scaling process that has been suspended. For more information, see ProcessType (p. 197).

## Contents

**ProcessName**

The name of the suspended process.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**SuspensionReason**

The reason that the process was suspended.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# Tag

Describes a tag for an Auto Scaling group.

## Contents

**Key**

The tag key.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: Yes

**PropagateAtLaunch**

Determines whether the tag is added to new instances as they are launched in the group.

Type: Boolean

Required: No

**ResourceId**

The name of the group.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ResourceType**

The type of resource. The only supported value is `auto-scaling-group`.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Value**

The tag value.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# TagDescription

Describes a tag for an Auto Scaling group.

## Contents

**Key**

The tag key.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**PropagateAtLaunch**

Determines whether the tag is added to new instances as they are launched in the group.

Type: Boolean

Required: No

**ResourceId**

The name of the group.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**ResourceType**

The type of resource. The only supported value is `auto-scaling-group`.

Type: String

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

**Value**

The tag value.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

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
- AWS SDK for Ruby V2

# TargetTrackingConfiguration

Represents a target tracking scaling policy configuration to use with Amazon EC2 Auto Scaling.

## Contents

**CustomizedMetricSpecification**

A customized metric. You must specify either a predefined metric or a customized metric.

Type: CustomizedMetricSpecification (p. 162) object

Required: No

**DisableScaleIn**

Indicates whether scaling in by the target tracking scaling policy is disabled. If scaling in is disabled, the target tracking scaling policy doesn't remove instances from the Auto Scaling group. Otherwise, the target tracking scaling policy can remove instances from the Auto Scaling group. The default is `false`.

Type: Boolean

Required: No

**PredefinedMetricSpecification**

A predefined metric. You must specify either a predefined metric or a customized metric.

Type: PredefinedMetricSpecification (p. 196) object

Required: No

**TargetValue**

The target value for the metric.

Type: Double

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
- AWS SDK for Ruby V2

# 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

**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

# Auto Scaling SOAP API

We have deprecated the SOAP API for Amazon EC2 Auto Scaling. As of December 4, 2017, if you make a SOAP request, you will receive the following response:

```
Client.InvalidQueryParameter: SOAP is no longer supported
```

We recommend that you use the Query API for Amazon EC2 Auto Scaling, the AWS CLI, or one of the AWS SDKs. For more information, see Accessing Amazon EC2 Auto Scaling in the *Amazon EC2 Auto Scaling User Guide*.