Elastic Load Balancing

API Reference

API Version 2012-06-01

aws

Elastic Load Balancing: API Reference

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Welcome

A load balancer can distribute incoming traffic across your EC2 instances. This enables you to increase the availability of your application. The load balancer also monitors the health of its registered instances and ensures that it routes traffic only to healthy instances. You configure your load balancer to accept incoming traffic by specifying one or more listeners, which are configured with a protocol and port number for connections from clients to the load balancer and a protocol and port number for connections from the load balancer to the instances.

Elastic Load Balancing supports three types of load balancers: Application Load Balancers, Network Load Balancers, and Classic Load Balancers. You can select a load balancer based on your application needs. For more information, see the Elastic Load Balancing User Guide.

This reference covers the 2012-06-01 API, which supports Classic Load Balancers. The 2015-12-01 API supports Application Load Balancers and Network Load Balancers.

To get started, create a load balancer with one or more listeners using CreateLoadBalancer (p. 15). Register your instances with the load balancer using RegisterInstancesWithLoadBalancer (p. 61).

All Elastic Load Balancing operations are *idempotent*, which means that they complete at most one time. If you repeat an operation, it succeeds with a 200 OK response code.

This document was last published on May 24, 2023.

Actions

The following actions are supported:

AddTags

Adds the specified tags to the specified load balancer. Each load balancer can have a maximum of 10 tags.

Each tag consists of a key and an optional value. If a tag with the same key is already associated with the load balancer, `AddTags` updates its value.

For more information, see Tag Your Classic Load Balancer in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerNames.member.N

> The name of the load balancer. You can specify one load balancer only.
>
> Type: Array of strings
>
> Required: Yes

Tags.member.N

> The tags.
>
> Type: Array of Tag (p. 103) objects
>
> Array Members: Minimum number of 1 item.
>
> Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

DuplicateTagKeys

> A tag key was specified more than once.
>
> HTTP Status Code: 400

LoadBalancerNotFound

> The specified load balancer does not exist.
>
> HTTP Status Code: 400

TooManyTags

> The quota for the number of tags that can be assigned to a load balancer has been reached.
>
> HTTP Status Code: 400

Examples

Add Tags

This example adds tags to the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=AddTags
&LoadBalancerNames.member.1=my-loadbalancer
&Tags.member.1.Key=project
&Tags.member.1.Value=lima
&Version=2012-06-01
&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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ApplySecurityGroupsToLoadBalancer

Associates one or more security groups with your load balancer in a virtual private cloud (VPC). The specified security groups override the previously associated security groups.

For more information, see Security Groups for Load Balancers in a VPC in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

SecurityGroups.member.N

The IDs of the security groups to associate with the load balancer. Note that you cannot specify the name of the security group.

Type: Array of strings

Required: Yes

Response Elements

The following element is returned by the service.

SecurityGroups.member.N

The IDs of the security groups associated with the load balancer.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

InvalidSecurityGroup

One or more of the specified security groups do not exist.

HTTP Status Code: 400

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Associate a Security Group

This example associates a security group with the specified load balancer in a VPC.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=ApplySecurityGroupsToLoadBalancer
&LoadBalancerName=my-vpc-loadbalancer
&SecurityGroups.member.1=sg-123456789
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<ApplySecurityGroupsToLoadBalancerResponse xmlns="http://
elasticloadbalancing.amazonaws.com/doc/2012-06-01/">
  <ApplySecurityGroupsToLoadBalancerResult>
    <SecurityGroups>
      <member>sg-123456789</member>
    </SecurityGroups>
  </ApplySecurityGroupsToLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>06b5decc-102a-11e3-9ad6-bf3e4EXAMPLE</RequestId>
  </ResponseMetadata>
</ApplySecurityGroupsToLoadBalancerResponse>
```

See Also

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

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

AttachLoadBalancerToSubnets

Adds one or more subnets to the set of configured subnets for the specified load balancer.

The load balancer evenly distributes requests across all registered subnets. For more information, see Add or Remove Subnets for Your Load Balancer in a VPC in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerName

> The name of the load balancer.
>
> Type: String
>
> Required: Yes

Subnets.member.N

> The IDs of the subnets to add. You can add only one subnet per Availability Zone.
>
> Type: Array of strings
>
> Required: Yes

Response Elements

The following element is returned by the service.

Subnets.member.N

> The IDs of the subnets attached to the load balancer.
>
> Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidConfigurationRequest

> The requested configuration change is not valid.
>
> HTTP Status Code: 409

InvalidSubnet

> The specified VPC has no associated Internet gateway.
>
> HTTP Status Code: 400

LoadBalancerNotFound

> The specified load balancer does not exist.

HTTP Status Code: 400

SubnetNotFound

One or more of the specified subnets do not exist.

HTTP Status Code: 400

Examples

Attach Subnets

This example adds the specified subnet to the set of configured subnets for the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=AttachLoadBalancerToSubnets
&LoadBalancerName=my-vpc-loadbalancer
&Subnets.member.1=subnet-3561b05e
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<AttachLoadBalancerToSubnetsResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <AttachLoadBalancerToSubnetsResult>
    <Subnets>
      <member>subnet-119f0078</member>
      <member>subnet-3561b05e</member>
    </Subnets>
  </AttachLoadBalancerToSubnetsResult>
  <ResponseMetadata>
    <RequestId>07b1ecbc-1100-11e3-acaf-dd7edEXAMPLE</RequestId>
  </ResponseMetadata>
</AttachLoadBalancerToSubnetsResponse>
```

See Also

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

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

ConfigureHealthCheck

Specifies the health check settings to use when evaluating the health state of your EC2 instances.

For more information, see Configure Health Checks for Your Load Balancer in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

HealthCheck

>   The configuration information.
>
>   Type: HealthCheck (p. 80) object
>
>   Required: Yes

LoadBalancerName

>   The name of the load balancer.
>
>   Type: String
>
>   Required: Yes

Response Elements

The following element is returned by the service.

HealthCheck

>   The updated health check.
>
>   Type: HealthCheck (p. 80) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

LoadBalancerNotFound

>   The specified load balancer does not exist.
>
>   HTTP Status Code: 400

Examples

Specify Health Check Settings

This example specifies the health check settings used to evaluate the health of your EC2 instances.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=ConfigureHealthCheck
&LoadBalancerName=my-loadbalancer
&HealthCheck.HealthyThreshold=2
&HealthCheck.UnhealthyThreshold=2
&HealthCheck.Target=HTTP:80/ping
&HealthCheck.Interval=30
&HealthCheck.Timeout=3
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<ConfigureHealthCheckResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <ConfigureHealthCheckResult>
    <HealthCheck>
      <Interval>30</Interval>
      <Target>HTTP:80/ping</Target>
      <HealthyThreshold>2</HealthyThreshold>
      <Timeout>3</Timeout>
      <UnhealthyThreshold>2</UnhealthyThreshold>
    </HealthCheck>
  </ConfigureHealthCheckResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
  </ResponseMetadata>
</ConfigureHealthCheckResponse>
```

See Also

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

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

CreateAppCookieStickinessPolicy

Generates a stickiness policy with sticky session lifetimes that follow that of an application-generated cookie. This policy can be associated only with HTTP/HTTPS listeners.

This policy is similar to the policy created by CreateLBCookieStickinessPolicy (p. 13), except that the lifetime of the special Elastic Load Balancing cookie, AWSELB, follows the lifetime of the application-generated cookie specified in the policy configuration. The load balancer only inserts a new stickiness cookie when the application response includes a new application cookie.

If the application cookie is explicitly removed or expires, the session stops being sticky until a new application cookie is issued.

For more information, see Application-Controlled Session Stickiness in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

CookieName

The name of the application cookie used for stickiness.

Type: String

Required: Yes

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

PolicyName

The name of the policy being created. Policy names must consist of alphanumeric characters and dashes (-). This name must be unique within the set of policies for this load balancer.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

DuplicatePolicyName

A policy with the specified name already exists for this load balancer.

HTTP Status Code: 400

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

TooManyPolicies

The quota for the number of policies for this load balancer has been reached.

HTTP Status Code: 400

Examples

Generate a Stickiness Policy

This example generates a stickiness policy that follows the sticky session lifetimes of the application-generated cookie.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateAppCookieStickinessPolicy
&LoadBalancerName=my-loadbalancer
&PolicyName=my-app-sticky-policy
&CookieName=my-app-cookie
&Version=2012-06-01
&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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateLBCookieStickinessPolicy

Generates a stickiness policy with sticky session lifetimes controlled by the lifetime of the browser (user-agent) or a specified expiration period. This policy can be associated only with HTTP/HTTPS listeners.

When a load balancer implements this policy, the load balancer uses a special cookie to track the instance for each request. When the load balancer receives a request, it first checks to see if this cookie is present in the request. If so, the load balancer sends the request to the application server specified in the cookie. If not, the load balancer sends the request to a server that is chosen based on the existing load-balancing algorithm.

A cookie is inserted into the response for binding subsequent requests from the same user to that server. The validity of the cookie is based on the cookie expiration time, which is specified in the policy configuration.

For more information, see Duration-Based Session Stickiness in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

CookieExpirationPeriod

The time period, in seconds, after which the cookie should be considered stale. If you do not specify this parameter, the default value is 0, which indicates that the sticky session should last for the duration of the browser session.

Type: Long

Required: No

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

PolicyName

The name of the policy being created. Policy names must consist of alphanumeric characters and dashes (-). This name must be unique within the set of policies for this load balancer.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

DuplicatePolicyName

A policy with the specified name already exists for this load balancer.

HTTP Status Code: 400

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

TooManyPolicies

The quota for the number of policies for this load balancer has been reached.

HTTP Status Code: 400

Examples

Generate a Stickiness Policy

This example generates a stickiness policy with sticky session lifetimes controlled by the specified expiration period.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLBCookieStickinessPolicy
&LoadBalancerName=my-loadbalancer
&PolicyName=my-duration-sticky-policy
&CookieExpirationPeriod=60
&Version=2012-06-01
&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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateLoadBalancer

Creates a Classic Load Balancer.

You can add listeners, security groups, subnets, and tags when you create your load balancer, or you can add them later using CreateLoadBalancerListeners (p. 22), ApplySecurityGroupsToLoadBalancer (p. 5), AttachLoadBalancerToSubnets (p. 7), and AddTags (p. 3).

To describe your current load balancers, see DescribeLoadBalancers (p. 46). When you are finished with a load balancer, you can delete it using DeleteLoadBalancer (p. 26).

You can create up to 20 load balancers per region per account. You can request an increase for the number of load balancers for your account. For more information, see Limits for Your Classic Load Balancer in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

AvailabilityZones.member.N

One or more Availability Zones from the same region as the load balancer.

You must specify at least one Availability Zone.

You can add more Availability Zones after you create the load balancer using EnableAvailabilityZonesForLoadBalancer (p. 55).

Type: Array of strings

Required: No

Listeners.member.N

The listeners.

For more information, see Listeners for Your Classic Load Balancer in the *Classic Load Balancers Guide*.

Type: Array of Listener (p. 87) objects

Required: Yes

LoadBalancerName

The name of the load balancer.

This name must be unique within your set of load balancers for the region, must have a maximum of 32 characters, must contain only alphanumeric characters or hyphens, and cannot begin or end with a hyphen.

Type: String

Required: Yes

Scheme

The type of a load balancer. Valid only for load balancers in a VPC.

By default, Elastic Load Balancing creates an Internet-facing load balancer with a DNS name that resolves to public IP addresses. For more information about Internet-facing and Internal load balancers, see Load Balancer Scheme in the *Elastic Load Balancing User Guide*.

Specify `internal` to create a load balancer with a DNS name that resolves to private IP addresses.

Type: String

Required: No

SecurityGroups.member.N

The IDs of the security groups to assign to the load balancer.

Type: Array of strings

Required: No

Subnets.member.N

The IDs of the subnets in your VPC to attach to the load balancer. Specify one subnet per Availability Zone specified in `AvailabilityZones`.

Type: Array of strings

Required: No

Tags.member.N

A list of tags to assign to the load balancer.

For more information about tagging your load balancer, see Tag Your Classic Load Balancer in the *Classic Load Balancers Guide*.

Type: Array of Tag (p. 103) objects

Array Members: Minimum number of 1 item.

Required: No

Response Elements

The following element is returned by the service.

DNSName

The DNS name of the load balancer.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

CertificateNotFound

The specified ARN does not refer to a valid SSL certificate in AWS Identity and Access Management (IAM) or AWS Certificate Manager (ACM). Note that if you recently uploaded the certificate to IAM, this error might indicate that the certificate is not fully available yet.

HTTP Status Code: 400

DuplicateLoadBalancerName

The specified load balancer name already exists for this account.

HTTP Status Code: 400

DuplicateTagKeys

A tag key was specified more than once.

HTTP Status Code: 400

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

InvalidScheme

The specified value for the schema is not valid. You can only specify a scheme for load balancers in a VPC.

HTTP Status Code: 400

InvalidSecurityGroup

One or more of the specified security groups do not exist.

HTTP Status Code: 400

InvalidSubnet

The specified VPC has no associated Internet gateway.

HTTP Status Code: 400

OperationNotPermitted

This operation is not allowed.

HTTP Status Code: 400

SubnetNotFound

One or more of the specified subnets do not exist.

HTTP Status Code: 400

TooManyLoadBalancers

The quota for the number of load balancers has been reached.

HTTP Status Code: 400

TooManyTags

The quota for the number of tags that can be assigned to a load balancer has been reached.

HTTP Status Code: 400

UnsupportedProtocol

The specified protocol or signature version is not supported.

HTTP Status Code: 400

Examples

Create a Load Balancer in EC2-Classic

This example creates an HTTP load balancer in EC2-Classic.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLoadBalancer
&LoadBalancerName=my-loadbalancer
&AvailabilityZones.member.1=us-east-1c
&Listeners.member.1.LoadBalancerPort=80
&Listeners.member.1.InstancePort=80
&Listeners.member.1.Protocol=http
&Listeners.member.1.InstanceProtocol=http
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<CreateLoadBalancerResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <CreateLoadBalancerResult>
    <DNSName>my-loadbalancer-1234567890.us-east-1.elb.amazonaws.com</DNSName>
  </CreateLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
  </ResponseMetadata>
</CreateLoadBalancerResponse>
```

Create an HTTPS Load Balancer in EC2-Classic

This example creates an HTTPS load balancer in EC2-Classic.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLoadBalancer
&LoadBalancerName=my-https-loadbalancer
&AvailabilityZones.member.1=us-east-1c
&Listeners.member.1.LoadBalancerPort=443
&Listeners.member.1.InstancePort=443
&Listeners.member.1.Protocol=https
&Listeners.member.1.InstanceProtocol=https
&Listeners.member.1.SSLCertificateId=arn:aws:iam::123456789012:server-certificate/my-
server-cert
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<CreateLoadBalancerResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <CreateLoadBalancerResult>
    <DNSName>my-https-loadbalancer-1234567890.us-east-1.elb.amazonaws.com</DNSName>
  </CreateLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
```

```
    </ResponseMetadata>
</CreateLoadBalancerResponse>
```

Create a Load Balancer in a VPC

This example creates an HTTP load balancer in a VPC.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLoadBalancer
&LoadBalancerName=my-vpc-loadbalancer
&Listeners.member.1.LoadBalancerPort=80
&Listeners.member.1.InstancePort=80
&Listeners.member.1.Protocol=http
&Listeners.member.1.InstanceProtocol=http
&Subnets.member.1=subnet-6dec9f03
&SecurityGroups.member.1=sg-6801da07
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<CreateLoadBalancerResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <CreateLoadBalancerResult>
    <DNSName>my-vpc-loadbalancer-1234567890.us-east-1.elb.amazonaws.com</DNSName>
  </CreateLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
  </ResponseMetadata>
</CreateLoadBalancerResponse>
```

Create an Internal Load Balancer

This example creates an internal HTTP load balancer in a VPC.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLoadBalancer
&LoadBalancerName=my-internal-loadbalancer
&Scheme=internal
&SecurityGroups.member.1=sg-706cb61f
&Listeners.member.1.LoadBalancerPort=80
&Listeners.member.1.InstancePort=80
&Listeners.member.1.Protocol=http
&Listeners.member.1.InstanceProtocol=http
&Subnets.member.1=subnet-9edc97f0
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<CreateLoadBalancerResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <CreateLoadBalancerResult>
    <DNSName>internal-my-internal-loadbalancer-1234567890.us-east-1.elb.amazonaws.com</
DNSName>
  </CreateLoadBalancerResult>
```

```
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
  </ResponseMetadata>
</CreateLoadBalancerResponse>
```

Create a Load Balancer in a Default VPC

This example creates a load balancer in a default VPC.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLoadBalancer
&LoadBalancerName=my-defaultvpc-loadbalancer
&AvailabilityZones.member.1=sa-east-1b
&Listeners.member.1.LoadBalancerPort=80
&Listeners.member.1.InstancePort=80
&Listeners.member.1.Protocol=http
&Listeners.member.1.InstanceProtocol=http
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<CreateLoadBalancerResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <CreateLoadBalancerResult>
    <DNSName>my-defaultvpc-loadbalancer-1234567890.sa.east-1.elb.amazonaws.com</DNSName>
  </CreateLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
  </ResponseMetadata>
</CreateLoadBalancerResponse>
```

Create a Load Balancer and Assign a Tag

This example creates an HTTP load balancer and assigns it a tag.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLoadBalancer
&LoadBalancerName=my-loadbalancer
&AvailabilityZones.member.1=us-east-1c;
&Listeners.member.1.LoadBalancerPort=80
&Listeners.member.1.InstancePort=80
&Listeners.member.1.Protocol=http
&Listeners.member.1.InstanceProtocol=http
&Tags.member.1.Value=digital-media
&Tags.member.1.Key=department
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<CreateLoadBalancerResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <CreateLoadBalancerResult>
```

```
    <DNSName>my-loadbalancer-1234567890.us-east-1.elb.amazonaws.com</DNSName>
  </CreateLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
  </ResponseMetadata>
</CreateLoadBalancerResponse>
```

See Also

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

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

CreateLoadBalancerListeners

Creates one or more listeners for the specified load balancer. If a listener with the specified port does not already exist, it is created; otherwise, the properties of the new listener must match the properties of the existing listener.

For more information, see Listeners for Your Classic Load Balancer in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

Listeners.member.N

    The listeners.

    Type: Array of Listener (p. 87) objects

    Required: Yes

LoadBalancerName

    The name of the load balancer.

    Type: String

    Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

CertificateNotFound

    The specified ARN does not refer to a valid SSL certificate in AWS Identity and Access Management (IAM) or AWS Certificate Manager (ACM). Note that if you recently uploaded the certificate to IAM, this error might indicate that the certificate is not fully available yet.

    HTTP Status Code: 400

DuplicateListener

    A listener already exists for the specified load balancer name and port, but with a different instance port, protocol, or SSL certificate.

    HTTP Status Code: 400

InvalidConfigurationRequest

    The requested configuration change is not valid.

    HTTP Status Code: 409

LoadBalancerNotFound

    The specified load balancer does not exist.

    HTTP Status Code: 400

UnsupportedProtocol

The specified protocol or signature version is not supported.

HTTP Status Code: 400

Examples

Create an HTTPS listener

This example creates a listener for the specified load balancer using port 443 and the HTTPS protocol.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLoadBalancerListeners
&LoadBalancerName=my-https-loadbalancer
&Listeners.member.1.Protocol=https
&Listeners.member.1.LoadBalancerPort=443
&Listeners.member.1.InstancePort=443
&Listeners.member.1.InstanceProtocol=https
&Listeners.member.1.SSLCertificateId=arn:aws:iam::123456789012:server-certificate/my-
server-cert
&Version=2012-06-01
&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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateLoadBalancerPolicy

Creates a policy with the specified attributes for the specified load balancer.

Policies are settings that are saved for your load balancer and that can be applied to the listener or the application server, depending on the policy type.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

PolicyAttributes.member.N

The policy attributes.

Type: Array of PolicyAttribute (p. 96) objects

Required: No

PolicyName

The name of the load balancer policy to be created. This name must be unique within the set of policies for this load balancer.

Type: String

Required: Yes

PolicyTypeName

The name of the base policy type. To get the list of policy types, use DescribeLoadBalancerPolicyTypes (p. 43).

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

DuplicatePolicyName

A policy with the specified name already exists for this load balancer.

HTTP Status Code: 400

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

PolicyTypeNotFound

One or more of the specified policy types do not exist.

HTTP Status Code: 400

TooManyPolicies

The quota for the number of policies for this load balancer has been reached.

HTTP Status Code: 400

Examples

Enable Proxy Protocol

This example creates a policy that enables proxy protocol on the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=CreateLoadBalancerPolicy
&LoadBalancerName=my-loadbalancer
&PolicyName=EnableProxyProtocol
&PolicyTypeName=ProxyProtocolPolicyType
&PolicyAttributes.member.1.AttributeName=ProxyProtocol
&PolicyAttributes.member.1.AttributeValue=true
&Version=2012-06-01
&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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteLoadBalancer

Deletes the specified load balancer.

If you are attempting to recreate a load balancer, you must reconfigure all settings. The DNS name associated with a deleted load balancer are no longer usable. The name and associated DNS record of the deleted load balancer no longer exist and traffic sent to any of its IP addresses is no longer delivered to your instances.

If the load balancer does not exist or has already been deleted, the call to `DeleteLoadBalancer` still succeeds.

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters (p. 108)](#).

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 106)](#).

See Also

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

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

DeleteLoadBalancerListeners

Deletes the specified listeners from the specified load balancer.

Request Parameters

For information about the parameters that are common to all actions, see Common
Parameters (p. 108).

LoadBalancerName

> The name of the load balancer.
>
> Type: String
>
> Required: Yes

LoadBalancerPorts.member.N

> The client port numbers of the listeners.
>
> Type: Array of integers
>
> Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

LoadBalancerNotFound

> The specified load balancer does not exist.
>
> HTTP Status Code: 400

See Also

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

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

DeleteLoadBalancerPolicy

Deletes the specified policy from the specified load balancer. This policy must not be enabled for any listeners.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerName

   The name of the load balancer.

   Type: String

   Required: Yes

PolicyName

   The name of the policy.

   Type: String

   Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidConfigurationRequest

   The requested configuration change is not valid.

   HTTP Status Code: 409

LoadBalancerNotFound

   The specified load balancer does not exist.

   HTTP Status Code: 400

See Also

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

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

- [AWS SDK for Ruby V3](#)

DeregisterInstancesFromLoadBalancer

Deregisters the specified instances from the specified load balancer. After the instance is deregistered, it no longer receives traffic from the load balancer.

You can use DescribeLoadBalancers (p. 46) to verify that the instance is deregistered from the load balancer.

For more information, see Register or De-Register EC2 Instances in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

Instances.member.N

The IDs of the instances.

Type: Array of Instance (p. 82) objects

Required: Yes

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

Response Elements

The following element is returned by the service.

Instances.member.N

The remaining instances registered with the load balancer.

Type: Array of Instance (p. 82) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidInstance

The specified endpoint is not valid.

HTTP Status Code: 400

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Deregister Instances

This example deregisters the specified instance from the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DeregisterInstancesFromLoadBalancer
&LoadBalancerName=my-https-loadbalancer
&Instances.member.1.InstanceId=i-e3677ad7
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DeregisterInstancesFromLoadBalancerResponse xmlns="http://
elasticloadbalancing.amazonaws.com/doc/2012-06-01/">
  <DeregisterInstancesFromLoadBalancerResult>
    <Instances>
      <member>
        <InstanceId>i-6ec63d59</InstanceId>
      </member>
    </Instances>
  </DeregisterInstancesFromLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
  </ResponseMetadata>
</DeregisterInstancesFromLoadBalancerResponse>
```

See Also

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

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

DescribeAccountLimits

Describes the current Elastic Load Balancing resource limits for your AWS account.

For more information, see Limits for Your Classic Load Balancer in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

Marker

The marker for the next set of results. (You received this marker from a previous call.)

Type: String

Required: No

PageSize

The maximum number of results to return with this call.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 400.

Required: No

Response Elements

The following elements are returned by the service.

Limits.member.N

Information about the limits.

Type: Array of Limit (p. 86) objects

NextMarker

The marker to use when requesting the next set of results. If there are no additional results, the string is empty.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET

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

DescribeInstanceHealth

Describes the state of the specified instances with respect to the specified load balancer. If no instances are specified, the call describes the state of all instances that are currently registered with the load balancer. If instances are specified, their state is returned even if they are no longer registered with the load balancer. The state of terminated instances is not returned.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

Instances.member.N

    The IDs of the instances.

    Type: Array of Instance (p. 82) objects

    Required: No

LoadBalancerName

    The name of the load balancer.

    Type: String

    Required: Yes

Response Elements

The following element is returned by the service.

InstanceStates.member.N

    Information about the health of the instances.

    Type: Array of InstanceState (p. 83) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidInstance

    The specified endpoint is not valid.

    HTTP Status Code: 400

LoadBalancerNotFound

    The specified load balancer does not exist.

    HTTP Status Code: 400

Examples

Describe Instance Health

This example describes the health of the instances for the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DescribeInstanceHealth
&LoadBalancerName=my-loadbalancer
&Version=2012-06-01
&AUTHPARAMS
```

Response for a Healthy Instance

This following example response describes a healthy instance.

Sample Response

```
<DescribeInstanceHealthResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeInstanceHealthResult>
    <InstanceStates>
      <member>
        <Description>N/A</Description>
        <InstanceId>i-90d8c2a5</InstanceId>
        <State>InService</State>
        <ReasonCode>N/A</ReasonCode>
      </member>
    </InstanceStates>
  </DescribeInstanceHealthResult>
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeInstanceHealthResponse>
```

Response for an Instance Not Yet Registered

The following example response describes an instance that is still being registered.

Sample Response

```
<DescribeInstanceHealthResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeInstanceHealthResult>
    <InstanceStates>
      <member>
        <Description>Instance registration is still in progress.</Description>
        <InstanceId>i-315b7e51</InstanceId>
        <State>OutOfService</State>
        <ReasonCode>ELB</ReasonCode>
      </member>
    </InstanceStates>
  </DescribeInstanceHealthResult>
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeInstanceHealthResponse>
```

Response for Unhealthy Instance

This following example response describes an unhealthy instance.

Sample Response

```
<DescribeInstanceHealthResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeInstanceHealthResult>
    <InstanceStates>
      <member>
        <Description>Instance has failed at least the UnhealthyThreshold number of health
 checks consecutively.</Description>
        <InstanceId>i-fda142c9</InstanceId>
        <State>OutOfService</State>
        <ReasonCode>Instance</ReasonCode>
      </member>
    </InstanceStates>
  </DescribeInstanceHealthResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
</ResponseMetadata>
</DescribeInstanceHealthResponse>
```

Response for an Instance in an Unknown State

This following example response describes an instance in an unknown state.

Sample Response

```
<DescribeInstanceHealthResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeInstanceHealthResult>
    <InstanceStates>
      <member>
        <Description>A transient error occurred. Please try again later.</Description>
        <InstanceId>i-7f12e649</InstanceId>
        <State>Unknown</State>
        <ReasonCode>ELB</ReasonCode>
      </member>
    </InstanceStates>
  </DescribeInstanceHealthResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
</ResponseMetadata>
</DescribeInstanceHealthResponse>
```

See Also

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

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

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

DescribeLoadBalancerAttributes

Describes the attributes for the specified load balancer.

Request Parameters

For information about the parameters that are common to all actions, see Common
Parameters (p. 108).

LoadBalancerName

> The name of the load balancer.
>
> Type: String
>
> Required: Yes

Response Elements

The following element is returned by the service.

LoadBalancerAttributes

> Information about the load balancer attributes.
>
> Type: LoadBalancerAttributes (p. 90) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

LoadBalancerAttributeNotFound

> The specified load balancer attribute does not exist.
>
> HTTP Status Code: 400

LoadBalancerNotFound

> The specified load balancer does not exist.
>
> HTTP Status Code: 400

Examples

Describe Load Balancer Attributes

This example describes the attributes of the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DescribeLoadBalancerAttributes
&LoadBalancerName=my-loadbalancer
```

```
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DescribeLoadBalancerAttributesResponse  xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeLoadBalancerAttributesResult>
    <LoadBalancerAttributes>
      <AccessLog>
        <Enabled>true</Enabled>
        <S3BucketName>my-loadbalancer-logs</S3BucketName>
        <S3BucketPrefix>testprefix</S3BucketPrefix>
        <EmitInterval>5</EmitInterval>
      </AccessLog>
      <ConnectionSettings>
        <IdleTimeout>30</IdleTimeout>
      </ConnectionSettings>
      <CrossZoneLoadBalancing>
        <Enabled>true</Enabled>
      </CrossZoneLoadBalancing>
      <ConnectionDraining>
        <Enabled>true</Enabled>
        <Timeout>60</Timeout>
      </ConnectionDraining>
    </LoadBalancerAttributes>
  </DescribeLoadBalancerAttributesResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeLoadBalancerAttributesResponse>
```

See Also

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

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

DescribeLoadBalancerPolicies

Describes the specified policies.

If you specify a load balancer name, the action returns the descriptions of all policies created for the load balancer. If you specify a policy name associated with your load balancer, the action returns the description of that policy. If you don't specify a load balancer name, the action returns descriptions of the specified sample policies, or descriptions of all sample policies. The names of the sample policies have the `ELBSample-` prefix.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerName

The name of the load balancer.

Type: String

Required: No

PolicyNames.member.N

The names of the policies.

Type: Array of strings

Required: No

Response Elements

The following element is returned by the service.

PolicyDescriptions.member.N

Information about the policies.

Type: Array of PolicyDescription (p. 100) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

PolicyNotFound

One or more of the specified policies do not exist.

HTTP Status Code: 400

Examples

Describe All Policies

This example describes all of the policies associated with the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DescribeLoadBalancerPolicies
&LoadBalancerName=my-loadbalancer
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DescribeLoadBalancerPoliciesResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeLoadBalancerPoliciesResult>
    <PolicyDescriptions>
      <member>
        <PolicyName>my-duration-sticky-policy</PolicyName>
        <PolicyTypeName>LBCookieStickinessPolicyType</PolicyTypeName>
        <PolicyAttributeDescriptions>
          <member>
            <AttributeName>CookieExpirationPeriod</AttributeName>
            <AttributeValue>60</AttributeValue>
          </member>
        </PolicyAttributeDescriptions>
      </member>
      <member>
        <PolicyName>my-app-sticky-policy</PolicyName>
        <PolicyTypeName>AppCookieStickinessPolicyType</PolicyTypeName>
        <PolicyAttributeDescriptions>
          <member>
            <AttributeName>CookieName</AttributeName>
            <AttributeValue>my-app-cookie</AttributeValue>
          </member>
        </PolicyAttributeDescriptions>
      </member>
    </PolicyDescriptions>
  </DescribeLoadBalancerPoliciesResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeLoadBalancerPoliciesResponse>
```

Describe a Specific Policy

This example describes the specified policy associated with the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DescribeLoadBalancerPolicies
&LoadBalancerName=my-loadbalancer
&PolicyNames.member.1=EnableProxyProtocol
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DescribeLoadBalancerPoliciesResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeLoadBalancerPoliciesResult>
   <PolicyDescriptions>
      <member>
        <PolicyName>EnableProxyProtocol</PolicyName>
        <PolicyTypeName>ProxyProtocolPolicyType</PolicyTypeName>
        <PolicyAttributeDescriptions>
          <member>
            <AttributeName>ProxyProtocol</AttributeName>
            <AttributeValue>true</AttributeValue>
          </member>
        </PolicyAttributeDescriptions>
      </member>
    </PolicyDescriptions>
  </DescribeLoadBalancerPoliciesResult>
  <ResponseMetadata>
    <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeLoadBalancerPoliciesResponse>
```

See Also

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

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

DescribeLoadBalancerPolicyTypes

Describes the specified load balancer policy types or all load balancer policy types.

The description of each type indicates how it can be used. For example, some policies can be used only with layer 7 listeners, some policies can be used only with layer 4 listeners, and some policies can be used only with your EC2 instances.

You can use CreateLoadBalancerPolicy (p. 24) to create a policy configuration for any of these policy types. Then, depending on the policy type, use either SetLoadBalancerPoliciesOfListener (p. 70) or SetLoadBalancerPoliciesForBackendServer (p. 68) to set the policy.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

PolicyTypeNames.member.N

> The names of the policy types. If no names are specified, describes all policy types defined by Elastic Load Balancing.
>
> Type: Array of strings
>
> Required: No

Response Elements

The following element is returned by the service.

PolicyTypeDescriptions.member.N

> Information about the policy types.
>
> Type: Array of PolicyTypeDescription (p. 101) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

PolicyTypeNotFound

> One or more of the specified policy types do not exist.
>
> HTTP Status Code: 400

Examples

Describe All Policy Types

This example describes the load balancer policy types that you can use to create policy configurations.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DescribeLoadBalancerPolicyTypes
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DescribeLoadBalancerPolicyTypesResponse  xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeLoadBalancerPolicyTypesResult>
    <PolicyTypeName>SSLNegotiationPolicyType</PolicyTypeName>
      <...>
    <PolicyTypeName>BackendServerAuthenticationPolicyType</PolicyTypeName>
      <...>
    <PolicyTypeName>PublicKeyPolicyType</PolicyTypeName>
      <...>
    <PolicyTypeName>AppCookieStickinessPolicyType</PolicyTypeName>
      <...>
    <PolicyTypeName>LBCookieStickinessPolicyType</PolicyTypeName>
      <...>
    <PolicyTypeName>ProxyProtocolPolicyType</PolicyTypeName>
      <...>
  </DescribeLoadBalancerPolicyTypesResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
  </ResponseMetadata>
</DescribeLoadBalancerPolicyTypesResponse>
```

Describe a Specific Policy Type

This example describes the specified policy type.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DescribeLoadBalancerPolicyTypes
&PolicyTypeNames.member.1=ProxyProtocolPolicyType
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DescribeLoadBalancerPolicyTypesResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeLoadBalancerPolicyTypesResult>
    <PolicyTypeDescriptions>
      <member>
        <PolicyAttributeTypeDescriptions>
          <member>
            <AttributeName>ProxyProtocol</AttributeName>
            <AttributeType>Boolean</AttributeType>
            <Cardinality>ONE</Cardinality>
          </member>
        </PolicyAttributeTypeDescriptions>
        <PolicyTypeName>ProxyProtocolPolicyType</PolicyTypeName>
        <Description>Policy that controls whether to include the IP address and port of the
 originating request for TCP messages.
        This policy operates on TCP/SSL listeners only</Description>
      </member>
```

```
      </PolicyTypeDescriptions>
    </DescribeLoadBalancerPolicyTypesResult>
    <ResponseMetadata>
      <RequestId>1549581b-12b7-11e3-895e-1334aEXAMPLE</RequestId>
    </ResponseMetadata>
</DescribeLoadBalancerPolicyTypesResponse>
```

See Also

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

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

DescribeLoadBalancers

Describes the specified load balancers. If no load balancers are specified, the call describes all of your load balancers.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerNames.member.N

The names of the load balancers.

Type: Array of strings

Required: No

Marker

The marker for the next set of results. (You received this marker from a previous call.)

Type: String

Required: No

PageSize

The maximum number of results to return with this call (a number from 1 to 400). The default is 400.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 400.

Required: No

Response Elements

The following elements are returned by the service.

LoadBalancerDescriptions.member.N

Information about the load balancers.

Type: Array of LoadBalancerDescription (p. 92) objects

NextMarker

The marker to use when requesting the next set of results. If there are no additional results, the string is empty.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

DependencyThrottle

A request made by Elastic Load Balancing to another service exceeds the maximum request rate permitted for your account.

HTTP Status Code: 400

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Describe a Load Balancer

This example describes the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DescribeLoadBalancers
&LoadBalancerNames.member.1=my-loadbalancer
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DescribeLoadBalancersResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DescribeLoadBalancersResult>
    <LoadBalancerDescriptions>
      <member>
        <SecurityGroups/>
        <LoadBalancerName>my-loadbalancer</LoadBalancerName>
        <CreatedTime>2013-05-24T21:15:31.280Z</CreatedTime>
        <HealthCheck>
          <Interval>90</Interval>
          <Target>HTTP:80/</Target>
          <HealthyThreshold>2</HealthyThreshold>
          <Timeout>60</Timeout>
          <UnhealthyThreshold>10</UnhealthyThreshold>
        </HealthCheck>
        <ListenerDescriptions>
          <member>
            <PolicyNames/>
            <Listener>
              <Protocol>HTTP</Protocol>
              <LoadBalancerPort>80</LoadBalancerPort>
              <InstanceProtocol>HTTP</InstanceProtocol>
              <InstancePort>80</InstancePort>
            </Listener>
          </member>
        </ListenerDescriptions>
        <Instances>
          <member>
            <InstanceId>i-e4cbe38d</InstanceId>
          </member>
        </Instances>
        <Policies>
```

```
            <AppCookieStickinessPolicies/>
            <OtherPolicies/>
            <LBCookieStickinessPolicies/>
        </Policies>
        <AvailabilityZones>
            <member>us-east-1a</member>
        </AvailabilityZones>
        <CanonicalHostedZoneNameID>ZZZZZZZZZZZZ123X</CanonicalHostedZoneNameID>
        <CanonicalHostedZoneName>my-loadbalancer-123456789.us-east-1.elb.amazonaws.com</
CanonicalHostedZoneName>
        <Scheme>internet-facing</Scheme>
        <SourceSecurityGroup>
            <OwnerAlias>amazon-elb</OwnerAlias>
            <GroupName>amazon-elb-sg</GroupName>
        </SourceSecurityGroup>
        <DNSName>my-loadbalancer-123456789.us-east-1.elb.amazonaws.com</DNSName>
        <BackendServerDescriptions/>
        <Subnets/>
      </member>
    </LoadBalancerDescriptions>
  </DescribeLoadBalancersResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeTags

Describes the tags associated with the specified load balancers.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerNames.member.N

The names of the load balancers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

Response Elements

The following element is returned by the service.

TagDescriptions.member.N

Information about the tags.

Type: Array of TagDescription (p. 104) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Describe Tags

This example describes the tags assigned to the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DescribeTags
&LoadBalancerNames.member.1=my-loadbalancer
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DescribeTagsResponse xmlns="http://elasticloadbalancing.amazonaws.com/doc/2012-06-01/">
  <DescribeTagsResult>
    <TagDescriptions>
      <member>
        <Tags>
          <member>
            <Value>lima</Value>
            <Key>project</Key>
          </member>
          <member>
            <Value>digital-media</Value>
            <Key>department</Key>
          </member>
        </Tags>
        <LoadBalancerName>my-loadbalancer</LoadBalancerName>
      </member>
    </TagDescriptions>
  </DescribeTagsResult>
  <ResponseMetadata>
    <RequestId>07b1ecbc-1100-11e3-acaf-dd7edEXAMPLE</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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DetachLoadBalancerFromSubnets

Removes the specified subnets from the set of configured subnets for the load balancer.

After a subnet is removed, all EC2 instances registered with the load balancer in the removed subnet go into the `OutOfService` state. Then, the load balancer balances the traffic among the remaining routable subnets.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerName

> The name of the load balancer.
>
> Type: String
>
> Required: Yes

Subnets.member.N

> The IDs of the subnets.
>
> Type: Array of strings
>
> Required: Yes

Response Elements

The following element is returned by the service.

Subnets.member.N

> The IDs of the remaining subnets for the load balancer.
>
> Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidConfigurationRequest

> The requested configuration change is not valid.
>
> HTTP Status Code: 409

LoadBalancerNotFound

> The specified load balancer does not exist.
>
> HTTP Status Code: 400

Examples

Detach Load Balancer

This example detaches the specified subnet from the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DetachLoadBalancerFromSubnets
&LoadBalancerName=my-vpc-loadbalancer
&Subnets.member.1=subnet-119f0078
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DetachLoadBalancerFromSubnetsResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <DetachLoadBalancerFromSubnetsResult>
    <Subnets>
      <member>subnet-159f007c</member>
      <member>subnet-3561b05e</member>
    </Subnets>
  </DetachLoadBalancerFromSubnetsResult>
  <ResponseMetadata>
    <RequestId>07b1ecbc-1100-11e3-acaf-dd7edEXAMPLE</RequestId>
  </ResponseMetadata>
</DetachLoadBalancerFromSubnetsResponse>
```

See Also

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

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

DisableAvailabilityZonesForLoadBalancer

Removes the specified Availability Zones from the set of Availability Zones for the specified load balancer in EC2-Classic or a default VPC.

For load balancers in a non-default VPC, use DetachLoadBalancerFromSubnets (p. 51).

There must be at least one Availability Zone registered with a load balancer at all times. After an Availability Zone is removed, all instances registered with the load balancer that are in the removed Availability Zone go into the OutOfService state. Then, the load balancer attempts to equally balance the traffic among its remaining Availability Zones.

For more information, see Add or Remove Availability Zones in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

AvailabilityZones.member.N

The Availability Zones.

Type: Array of strings

Required: Yes

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

Response Elements

The following element is returned by the service.

AvailabilityZones.member.N

The remaining Availability Zones for the load balancer.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Disable Availability Zones

This example disables the specified Availability Zone for the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=DisableAvailabilityZonesForLoadBalancer
&LoadBalancerName=my-https-loadbalancer
&AvailabilityZones.member.1=us-east-1a
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<DisableAvailabilityZonesForLoadBalancerResponse xmlns="http://
elasticloadbalancing.amazonaws.com/doc/2012-06-01/">
  <DisableAvailabilityZonesForLoadBalancerResult>
    <AvailabilityZones>
      <member>us-east-1b</member>
    </AvailabilityZones>
  </DisableAvailabilityZonesForLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>ba6267d5-2566-11e3-9c6d-eb728EXAMPLE</RequestId>
  </ResponseMetadata>
</DisableAvailabilityZonesForLoadBalancerResponse>
```

See Also

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

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

EnableAvailabilityZonesForLoadBalancer

Adds the specified Availability Zones to the set of Availability Zones for the specified load balancer in EC2-Classic or a default VPC.

For load balancers in a non-default VPC, use AttachLoadBalancerToSubnets (p. 7).

The load balancer evenly distributes requests across all its registered Availability Zones that contain instances. For more information, see Add or Remove Availability Zones in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

AvailabilityZones.member.N

The Availability Zones. These must be in the same region as the load balancer.

Type: Array of strings

Required: Yes

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

Response Elements

The following element is returned by the service.

AvailabilityZones.member.N

The updated list of Availability Zones for the load balancer.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Enable Availability Zones

This example enables the specified Availability Zone for the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=EnableAvailabilityZonesForLoadBalancer
&LoadBalancerName=my-loadbalancer
&AvailabilityZones.member.1=us-east-1c
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<EnableAvailabilityZonesForLoadBalancerResponse xmlns="http://
elasticloadbalancing.amazonaws.com/doc/2012-06-01/">
  <EnableAvailabilityZonesForLoadBalancerResult>
    <AvailabilityZones>
      <member>us-east-1a</member>
      <member>us-east-1c</member>
    </AvailabilityZones>
  </EnableAvailabilityZonesForLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
  </ResponseMetadata>
</EnableAvailabilityZonesForLoadBalancerResponse>
```

See Also

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

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

ModifyLoadBalancerAttributes

Modifies the attributes of the specified load balancer.

You can modify the load balancer attributes, such as `AccessLogs`, `ConnectionDraining`, and `CrossZoneLoadBalancing` by either enabling or disabling them. Or, you can modify the load balancer attribute `ConnectionSettings` by specifying an idle connection timeout value for your load balancer.

For more information, see the following in the *Classic Load Balancers Guide*:

- Cross-Zone Load Balancing
- Connection Draining
- Access Logs
- Idle Connection Timeout

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerAttributes

    The attributes for the load balancer.

    Type: LoadBalancerAttributes (p. 90) object

    Required: Yes

LoadBalancerName

    The name of the load balancer.

    Type: String

    Required: Yes

Response Elements

The following elements are returned by the service.

LoadBalancerAttributes

    Information about the load balancer attributes.

    Type: LoadBalancerAttributes (p. 90) object

LoadBalancerName

    The name of the load balancer.

    Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

LoadBalancerAttributeNotFound

The specified load balancer attribute does not exist.

HTTP Status Code: 400

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Enable Cross-Zone Load Balancing

This example modifies the CrossZoneLoadBalancing attribute of the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=ModifyLoadBalancerAttributes
&LoadBalancerAttributes.CrossZoneLoadBalancing.Enabled=true
&LoadBalancerName=my-loadbalancer
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<ModifyLoadBalancerAttributesResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
  <ModifyLoadBalancerAttributesResult>
  <LoadBalancerName>my-loadbalancer</LoadBalancerName>
    <LoadBalancerAttributes>
      <CrossZoneLoadBalancing>
        <Enabled>true</Enabled>
      </CrossZoneLoadBalancing>
    </LoadBalancerAttributes>
  </ModifyLoadBalancerAttributesResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
  </ResponseMetadata>
</ModifyLoadBalancerAttributesResponse>
```

Enable Access Logs

This example enables access logs for the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=ModifyLoadBalancerAttributes
&LoadBalancerAttributes.AccessLog.Enabled=true
```

```
&LoadBalancerAttributes.AccessLog.S3BucketName=my-loadbalancer-logs
&LoadBalancerAttributes.AccessLog.S3BucketPrefix=my-bucket-prefix/prod
&LoadBalancerAttributes.AccessLog.EmitInterval=60
&LoadBalancerName=my-loadbalancer
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<<ModifyLoadBalancerAttributesResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
<ModifyLoadBalancerAttributesResult>
    <LoadBalancerName>my-loadbalancer</LoadBalancerName>
    <LoadBalancerAttributes>
      <AccessLog>
        <Enabled>true</Enabled>
        <S3BucketName>my-loadbalancer-logs</S3BucketName>
        <S3BucketPrefix>my-bucket-prefix/prod</S3BucketPrefix>
        <EmitInterval>60</EmitInterval>
      </AccessLog>
    </LoadBalancerAttributes>
  </ModifyLoadBalancerAttributesResult>
<ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
</ResponseMetadata>
</ModifyLoadBalancerAttributesResponse>
```

Enable Connection Draining

This example modifies the ConnectionDraining attribute of the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=ModifyLoadBalancerAttributes
&LoadBalancerName=my-loadbalancer
&LoadBalancerAttributes.ConnectionDraining.Enabled=true
&LoadBalancerAttributes.ConnectionDraining.Timeout=60
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<<ModifyLoadBalancerAttributesResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
<ModifyLoadBalancerAttributesResult>
    <LoadBalancerName>my-loadbalancer</LoadBalancerName>
    <LoadBalancerAttributes>
      <ConnectionDraining>
        <Enabled>true</Enabled>
        <Timeout>60</Timeout>
      </ConnectionDraining>
    </LoadBalancerAttributes>
  </ModifyLoadBalancerAttributesResult>
<ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
</ResponseMetadata>
</ModifyLoadBalancerAttributesResponse>
```

Configure Idle Timeout

This example modifies the idle timeout value of the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=ModifyLoadBalancerAttributes
&LoadBalancerAttributes.ConnectionSettings.IdleTimeout=30
&LoadBalancerName=my-loadbalancer
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<<ModifyLoadBalancerAttributesResponse xmlns="http://elasticloadbalancing.amazonaws.com/
doc/2012-06-01/">
<ModifyLoadBalancerAttributesResult>
    <LoadBalancerName>my-loadbalancer</LoadBalancerName>
    <LoadBalancerAttributes>
        <ConnectionSettings>
            <IdleTimeout>30</IdleTimeout>
        </ConnectionSettings>
    </LoadBalancerAttributes>
  </ModifyLoadBalancerAttributesResult>
<ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
</ResponseMetadata>
</ModifyLoadBalancerAttributesResponse>
```

See Also

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

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

RegisterInstancesWithLoadBalancer

Adds the specified instances to the specified load balancer.

The instance must be a running instance in the same network as the load balancer (EC2-Classic or the same VPC). If you have EC2-Classic instances and a load balancer in a VPC with ClassicLink enabled, you can link the EC2-Classic instances to that VPC and then register the linked EC2-Classic instances with the load balancer in the VPC.

Note that `RegisterInstanceWithLoadBalancer` completes when the request has been registered. Instance registration takes a little time to complete. To check the state of the registered instances, use DescribeLoadBalancers (p. 46) or DescribeInstanceHealth (p. 34).

After the instance is registered, it starts receiving traffic and requests from the load balancer. Any instance that is not in one of the Availability Zones registered for the load balancer is moved to the `OutOfService` state. If an Availability Zone is added to the load balancer later, any instances registered with the load balancer move to the `InService` state.

To deregister instances from a load balancer, use DeregisterInstancesFromLoadBalancer (p. 30).

For more information, see Register or De-Register EC2 Instances in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

Instances.member.N

>   The IDs of the instances.

>   Type: Array of Instance (p. 82) objects

>   Required: Yes

LoadBalancerName

>   The name of the load balancer.

>   Type: String

>   Required: Yes

Response Elements

The following element is returned by the service.

Instances.member.N

>   The updated list of instances for the load balancer.

>   Type: Array of Instance (p. 82) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidInstance

The specified endpoint is not valid.

HTTP Status Code: 400

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Register Instances

This example registers the specified instance with the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=RegisterInstancesWithLoadBalancer
&LoadBalancerName=my-loadbalancer
&Instances.member.1.InstanceId=i-315b7e51
&Version=2012-06-01
&AUTHPARAMS
```

Sample Response

```
<RegisterInstancesWithLoadBalancerResponse xmlns="http://
elasticloadbalancing.amazonaws.com/doc/2012-06-01/">
  <RegisterInstancesWithLoadBalancerResult>
    <Instances>
      <member>
        <InstanceId>i-315b7e51</InstanceId>
      </member>
    </Instances>
  </RegisterInstancesWithLoadBalancerResult>
  <ResponseMetadata>
    <RequestId>83c88b9d-12b7-11e3-8b82-87b12EXAMPLE</RequestId>
  </ResponseMetadata>
</RegisterInstancesWithLoadBalancerResponse>
```

See Also

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

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

RemoveTags

Removes one or more tags from the specified load balancer.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerNames.member.N

The name of the load balancer. You can specify a maximum of one load balancer name.

Type: Array of strings

Required: Yes

Tags.member.N

The list of tag keys to remove.

Type: Array of TagKeyOnly (p. 105) objects

Array Members: Minimum number of 1 item.

Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

Examples

Remove Tags

This example removes the specified tags from the specified load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=RemoveTags
&LoadBalancerName=my-loadbalancer
&Tags.member.1.Key=department
&Tags.member.2.Key=project
&Version=2012-06-01
&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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

SetLoadBalancerListenerSSLCertificate

Sets the certificate that terminates the specified listener's SSL connections. The specified certificate replaces any prior certificate that was used on the same load balancer and port.

For more information about updating your SSL certificate, see Replace the SSL Certificate for Your Load Balancer in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

LoadBalancerPort

The port that uses the specified SSL certificate.

Type: Integer

Required: Yes

SSLCertificateId

The Amazon Resource Name (ARN) of the SSL certificate.

Type: String

Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

CertificateNotFound

The specified ARN does not refer to a valid SSL certificate in AWS Identity and Access Management (IAM) or AWS Certificate Manager (ACM). Note that if you recently uploaded the certificate to IAM, this error might indicate that the certificate is not fully available yet.

HTTP Status Code: 400

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

ListenerNotFound

The load balancer does not have a listener configured at the specified port.

HTTP Status Code: 400

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

UnsupportedProtocol

The specified protocol or signature version is not supported.

HTTP Status Code: 400

Examples

Update the SSL Certificate

This example replaces the existing SSL certificate for the specified HTTPS load balancer.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=SetLoadBalancerListenerSSLCertificate
&LoadBalancerName=my-loadbalancer
&SSLCertificateId=arn:aws:iam::123456789012:server-certificate/my-new-server-cert
&LoadBalancerPort=443
&Version=2012-06-01
&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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

SetLoadBalancerPoliciesForBackendServer

Replaces the set of policies associated with the specified port on which the EC2 instance is listening with a new set of policies. At this time, only the back-end server authentication policy type can be applied to the instance ports; this policy type is composed of multiple public key policies.

Each time you use `SetLoadBalancerPoliciesForBackendServer` to enable the policies, use the `PolicyNames` parameter to list the policies that you want to enable.

You can use [DescribeLoadBalancers (p. 46)](#) or [DescribeLoadBalancerPolicies (p. 40)](#) to verify that the policy is associated with the EC2 instance.

For more information about enabling back-end instance authentication, see [Configure Back-end Instance Authentication](#) in the *Classic Load Balancers Guide*. For more information about Proxy Protocol, see [Configure Proxy Protocol Support](#) in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters (p. 108)](#).

InstancePort

The port number associated with the EC2 instance.

Type: Integer

Required: Yes

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

PolicyNames.member.N

The names of the policies. If the list is empty, then all current polices are removed from the EC2 instance.

Type: Array of strings

Required: Yes

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 106)](#).

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

PolicyNotFound

One or more of the specified policies do not exist.

HTTP Status Code: 400

Examples

Replace Policies

This example replaces the policies that are currently associated with the specified port with the specified policies.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=SetLoadBalancerPoliciesForBackendServer
&LoadBalancerName=my-loadbalancer
&InstancePort=80
&PolicyNames.member.1=EnableProxyProtocol
&PolicyNames.member.2=my-policy2
&PolicyNames.member.3=my-policy3
&Version=2012-06-01
&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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

SetLoadBalancerPoliciesOfListener

Replaces the current set of policies for the specified load balancer port with the specified set of policies.

To enable back-end server authentication, use SetLoadBalancerPoliciesForBackendServer (p. 68).

For more information about setting policies, see Update the SSL Negotiation Configuration, Duration-Based Session Stickiness, and Application-Controlled Session Stickiness in the *Classic Load Balancers Guide*.

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 108).

LoadBalancerName

The name of the load balancer.

Type: String

Required: Yes

LoadBalancerPort

The external port of the load balancer.

Type: Integer

Required: Yes

PolicyNames.member.N

The names of the policies. This list must include all policies to be enabled. If you omit a policy that is currently enabled, it is disabled. If the list is empty, all current policies are disabled.

Type: Array of strings

Required: Yes

Errors

For information about the errors that are common to all actions, see Common Errors (p. 106).

InvalidConfigurationRequest

The requested configuration change is not valid.

HTTP Status Code: 409

ListenerNotFound

The load balancer does not have a listener configured at the specified port.

HTTP Status Code: 400

LoadBalancerNotFound

The specified load balancer does not exist.

HTTP Status Code: 400

PolicyNotFound

One or more of the specified policies do not exist.

HTTP Status Code: 400

Examples

Replace Policies

This example replaces the policies that are currently associated with the specified port with the specified policy. Note that this is the only policy that is enabled after this call. To ensure that any currently enabled policies remain enabled, add them to the PolicyNames list.

Sample Request

```
https://elasticloadbalancing.amazonaws.com/?Action=SetLoadBalancerPoliciesOfListener
&LoadBalancerName=my-loadbalancer
&LoadBalancerPort=443
&PolicyNames.member.1=my-SSLNegotiation-policy
&Version=2012-06-01
&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 V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

The Elastic Load Balancing 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:

- AccessLog (p. 73)
- AdditionalAttribute (p. 74)
- AppCookieStickinessPolicy (p. 75)
- BackendServerDescription (p. 76)
- ConnectionDraining (p. 77)
- ConnectionSettings (p. 78)
- CrossZoneLoadBalancing (p. 79)
- HealthCheck (p. 80)
- Instance (p. 82)
- InstanceState (p. 83)
- LBCookieStickinessPolicy (p. 85)
- Limit (p. 86)
- Listener (p. 87)
- ListenerDescription (p. 89)
- LoadBalancerAttributes (p. 90)
- LoadBalancerDescription (p. 92)
- Policies (p. 95)
- PolicyAttribute (p. 96)
- PolicyAttributeDescription (p. 97)
- PolicyAttributeTypeDescription (p. 98)
- PolicyDescription (p. 100)
- PolicyTypeDescription (p. 101)
- SourceSecurityGroup (p. 102)
- Tag (p. 103)
- TagDescription (p. 104)
- TagKeyOnly (p. 105)

AccessLog

Information about the `AccessLog` attribute.

Contents

EmitInterval

The interval for publishing the access logs. You can specify an interval of either 5 minutes or 60 minutes.

Default: 60 minutes

Type: Integer

Required: No

Enabled

Specifies whether access logs are enabled for the load balancer.

Type: Boolean

Required: Yes

S3BucketName

The name of the Amazon S3 bucket where the access logs are stored.

Type: String

Required: No

S3BucketPrefix

The logical hierarchy you created for your Amazon S3 bucket, for example `my-bucket-prefix/prod`. If the prefix is not provided, the log is placed at the root level of the bucket.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AdditionalAttribute

Information about additional load balancer attributes.

Contents

Key

The name of the attribute.

The following attribute is supported.

- `elb.http.desyncmitigationmode` - Determines how the load balancer handles requests that might pose a security risk to your application. The possible values are `monitor`, `defensive`, and `strictest`. The default is `defensive`.

Type: String

Length Constraints: Maximum length of 256.

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

Required: No

Value

This value of the attribute.

Type: String

Length Constraints: Maximum length of 256.

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

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AppCookieStickinessPolicy

Information about a policy for application-controlled session stickiness.

Contents

CookieName

The name of the application cookie used for stickiness.

Type: String

Required: No

PolicyName

The mnemonic name for the policy being created. The name must be unique within a set of policies for this load balancer.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

BackendServerDescription

Information about the configuration of an EC2 instance.

Contents

InstancePort

The port on which the EC2 instance is listening.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 65535.

Required: No

PolicyNames.member.N

The names of the policies enabled for the EC2 instance.

Type: Array of strings

Required: No

See Also

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

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

ConnectionDraining

Information about the `ConnectionDraining` attribute.

Contents

Enabled

Specifies whether connection draining is enabled for the load balancer.

Type: Boolean

Required: Yes

Timeout

The maximum time, in seconds, to keep the existing connections open before deregistering the instances.

Type: Integer

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ConnectionSettings

Information about the `ConnectionSettings` attribute.

Contents

IdleTimeout

The time, in seconds, that the connection is allowed to be idle (no data has been sent over the connection) before it is closed by the load balancer.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 3600.

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CrossZoneLoadBalancing

Information about the `CrossZoneLoadBalancing` attribute.

Contents

Enabled

Specifies whether cross-zone load balancing is enabled for the load balancer.

Type: Boolean

Required: Yes

See Also

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

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

HealthCheck

Information about a health check.

Contents

HealthyThreshold

The number of consecutive health checks successes required before moving the instance to the `Healthy` state.

Type: Integer

Valid Range: Minimum value of 2. Maximum value of 10.

Required: Yes

Interval

The approximate interval, in seconds, between health checks of an individual instance.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 300.

Required: Yes

Target

The instance being checked. The protocol is either TCP, HTTP, HTTPS, or SSL. The range of valid ports is one (1) through 65535.

TCP is the default, specified as a TCP: port pair, for example "TCP:5000". In this case, a health check simply attempts to open a TCP connection to the instance on the specified port. Failure to connect within the configured timeout is considered unhealthy.

SSL is also specified as SSL: port pair, for example, SSL:5000.

For HTTP/HTTPS, you must include a ping path in the string. HTTP is specified as a HTTP:port;/;PathToPing; grouping, for example "HTTP:80/weather/us/wa/seattle". In this case, a HTTP GET request is issued to the instance on the given port and path. Any answer other than "200 OK" within the timeout period is considered unhealthy.

The total length of the HTTP ping target must be 1024 16-bit Unicode characters or less.

Type: String

Required: Yes

Timeout

The amount of time, in seconds, during which no response means a failed health check.

This value must be less than the `Interval` value.

Type: Integer

Valid Range: Minimum value of 2. Maximum value of 60.

Required: Yes

UnhealthyThreshold

The number of consecutive health check failures required before moving the instance to the `Unhealthy` state.

Type: Integer

Valid Range: Minimum value of 2. Maximum value of 10.

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Instance

The ID of an EC2 instance.

Contents

InstanceId

The instance ID.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

InstanceState

Information about the state of an EC2 instance.

Contents

Description

A description of the instance state. This string can contain one or more of the following messages.

- `N/A`
- `A transient error occurred. Please try again later.`
- `Instance has failed at least the UnhealthyThreshold number of health checks consecutively.`
- `Instance has not passed the configured HealthyThreshold number of health checks consecutively.`
- `Instance registration is still in progress.`
- `Instance is in the EC2 Availability Zone for which LoadBalancer is not configured to route traffic to.`
- `Instance is not currently registered with the LoadBalancer.`
- `Instance deregistration currently in progress.`
- `Disable Availability Zone is currently in progress.`
- `Instance is in pending state.`
- `Instance is in stopped state.`
- `Instance is in terminated state.`

Type: String

Required: No

InstanceId

The ID of the instance.

Type: String

Required: No

ReasonCode

Information about the cause of `OutOfService` instances. Specifically, whether the cause is Elastic Load Balancing or the instance.

Valid values: ELB | `Instance` | `N/A`

Type: String

Required: No

State

The current state of the instance.

Valid values: `InService` | `OutOfService` | `Unknown`

Type: String

Required: No

See Also

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

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

LBCookieStickinessPolicy

Information about a policy for duration-based session stickiness.

Contents

CookieExpirationPeriod

The time period, in seconds, after which the cookie should be considered stale. If this parameter is not specified, the stickiness session lasts for the duration of the browser session.

Type: Long

Required: No

PolicyName

The name of the policy. This name must be unique within the set of policies for this load balancer.

Type: String

Required: No

See Also

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

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

Limit

Information about an Elastic Load Balancing resource limit for your AWS account.

Contents

Max

The maximum value of the limit.

Type: String

Required: No

Name

The name of the limit. The possible values are:

- classic-listeners
- classic-load-balancers
- classic-registered-instances

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Listener

Information about a listener.

For information about the protocols and the ports supported by Elastic Load Balancing, see Listeners for Your Classic Load Balancer in the *Classic Load Balancers Guide*.

Contents

InstancePort

The port on which the instance is listening.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 65535.

Required: Yes

InstanceProtocol

The protocol to use for routing traffic to instances: HTTP, HTTPS, TCP, or SSL.

If the front-end protocol is TCP or SSL, the back-end protocol must be TCP or SSL. If the front-end protocol is HTTP or HTTPS, the back-end protocol must be HTTP or HTTPS.

If there is another listener with the same `InstancePort` whose `InstanceProtocol` is secure, (HTTPS or SSL), the listener's `InstanceProtocol` must also be secure.

If there is another listener with the same `InstancePort` whose `InstanceProtocol` is HTTP or TCP, the listener's `InstanceProtocol` must be HTTP or TCP.

Type: String

Required: No

LoadBalancerPort

The port on which the load balancer is listening. On EC2-VPC, you can specify any port from the range 1-65535. On EC2-Classic, you can specify any port from the following list: 25, 80, 443, 465, 587, 1024-65535.

Type: Integer

Required: Yes

Protocol

The load balancer transport protocol to use for routing: HTTP, HTTPS, TCP, or SSL.

Type: String

Required: Yes

SSLCertificateId

The Amazon Resource Name (ARN) of the server certificate.

Type: String

Required: No

See Also

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

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

ListenerDescription

The policies enabled for a listener.

Contents

Listener

> The listener.

> Type: [Listener (p. 87)](p. 87) object

> Required: No

PolicyNames.member.N

> The policies. If there are no policies enabled, the list is empty.

> Type: Array of strings

> 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 C++)
- [AWS SDK for Go](AWS SDK for Go)
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LoadBalancerAttributes

The attributes for a load balancer.

Contents

AccessLog

If enabled, the load balancer captures detailed information of all requests and delivers the information to the Amazon S3 bucket that you specify.

For more information, see Enable Access Logs in the *Classic Load Balancers Guide*.

Type: AccessLog (p. 73) object

Required: No

AdditionalAttributes.member.N

Any additional attributes.

Type: Array of AdditionalAttribute (p. 74) objects

Array Members: Maximum number of 10 items.

Required: No

ConnectionDraining

If enabled, the load balancer allows existing requests to complete before the load balancer shifts traffic away from a deregistered or unhealthy instance.

For more information, see Configure Connection Draining in the *Classic Load Balancers Guide*.

Type: ConnectionDraining (p. 77) object

Required: No

ConnectionSettings

If enabled, the load balancer allows the connections to remain idle (no data is sent over the connection) for the specified duration.

By default, Elastic Load Balancing maintains a 60-second idle connection timeout for both front-end and back-end connections of your load balancer. For more information, see Configure Idle Connection Timeout in the *Classic Load Balancers Guide*.

Type: ConnectionSettings (p. 78) object

Required: No

CrossZoneLoadBalancing

If enabled, the load balancer routes the request traffic evenly across all instances regardless of the Availability Zones.

For more information, see Configure Cross-Zone Load Balancing in the *Classic Load Balancers Guide*.

Type: CrossZoneLoadBalancing (p. 79) object

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LoadBalancerDescription

Information about a load balancer.

Contents

AvailabilityZones.member.N

The Availability Zones for the load balancer.

Type: Array of strings

Required: No

BackendServerDescriptions.member.N

Information about your EC2 instances.

Type: Array of BackendServerDescription (p. 76) objects

Required: No

CanonicalHostedZoneName

The DNS name of the load balancer.

For more information, see Configure a Custom Domain Name in the *Classic Load Balancers Guide*.

Type: String

Required: No

CanonicalHostedZoneNameID

The ID of the Amazon Route 53 hosted zone for the load balancer.

Type: String

Required: No

CreatedTime

The date and time the load balancer was created.

Type: Timestamp

Required: No

DNSName

The DNS name of the load balancer.

Type: String

Required: No

HealthCheck

Information about the health checks conducted on the load balancer.

Type: HealthCheck (p. 80) object

Required: No

Instances.member.N

The IDs of the instances for the load balancer.

Type: Array of [Instance (p. 82)](#) objects

Required: No

ListenerDescriptions.member.N

The listeners for the load balancer.

Type: Array of [ListenerDescription (p. 89)](#) objects

Required: No

LoadBalancerName

The name of the load balancer.

Type: String

Required: No

Policies

The policies defined for the load balancer.

Type: [Policies (p. 95)](#) object

Required: No

Scheme

The type of load balancer. Valid only for load balancers in a VPC.

If Scheme is `internet-facing`, the load balancer has a public DNS name that resolves to a public IP address.

If Scheme is `internal`, the load balancer has a public DNS name that resolves to a private IP address.

Type: String

Required: No

SecurityGroups.member.N

The security groups for the load balancer. Valid only for load balancers in a VPC.

Type: Array of strings

Required: No

SourceSecurityGroup

The security group for the load balancer, which you can use as part of your inbound rules for your registered instances. To only allow traffic from load balancers, add a security group rule that specifies this source security group as the inbound source.

Type: [SourceSecurityGroup (p. 102)](#) object

Required: No

Subnets.member.N

The IDs of the subnets for the load balancer.

Type: Array of strings

Required: No

VPCId

The ID of the VPC for the load balancer.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Policies

The policies for a load balancer.

Contents

AppCookieStickinessPolicies.member.N

The stickiness policies created using CreateAppCookieStickinessPolicy (p. 11).

Type: Array of AppCookieStickinessPolicy (p. 75) objects

Required: No

LBCookieStickinessPolicies.member.N

The stickiness policies created using CreateLBCookieStickinessPolicy (p. 13).

Type: Array of LBCookieStickinessPolicy (p. 85) objects

Required: No

OtherPolicies.member.N

The policies other than the stickiness policies.

Type: Array of strings

Required: No

See Also

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

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

PolicyAttribute

Information about a policy attribute.

Contents

AttributeName

The name of the attribute.

Type: String

Required: No

AttributeValue

The value of the attribute.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PolicyAttributeDescription

Information about a policy attribute.

Contents

AttributeName

The name of the attribute.

Type: String

Required: No

AttributeValue

The value of the attribute.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PolicyAttributeTypeDescription

Information about a policy attribute type.

Contents

AttributeName

The name of the attribute.

Type: String

Required: No

AttributeType

The type of the attribute. For example, `Boolean` or `Integer`.

Type: String

Required: No

Cardinality

The cardinality of the attribute.

Valid values:

- ONE(1) : Single value required
- ZERO_OR_ONE(0..1) : Up to one value is allowed
- ZERO_OR_MORE(0..*) : Optional. Multiple values are allowed
- ONE_OR_MORE(1..*0) : Required. Multiple values are allowed

Type: String

Required: No

DefaultValue

The default value of the attribute, if applicable.

Type: String

Required: No

Description

A description of the attribute.

Type: String

Required: No

See Also

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

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

- [AWS SDK for Ruby V3](#)

PolicyDescription

Information about a policy.

Contents

PolicyAttributeDescriptions.member.N

The policy attributes.

Type: Array of PolicyAttributeDescription (p. 97) objects

Required: No

PolicyName

The name of the policy.

Type: String

Required: No

PolicyTypeName

The name of the policy type.

Type: String

Required: No

See Also

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

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

PolicyTypeDescription

Information about a policy type.

Contents

Description

A description of the policy type.

Type: String

Required: No

PolicyAttributeTypeDescriptions.member.N

The description of the policy attributes associated with the policies defined by Elastic Load Balancing.

Type: Array of PolicyAttributeTypeDescription (p. 98) objects

Required: No

PolicyTypeName

The name of the policy type.

Type: String

Required: No

See Also

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

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

SourceSecurityGroup

Information about a source security group.

Contents

GroupName

The name of the security group.

Type: String

Required: No

OwnerAlias

The owner of the security group.

Type: String

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Tag

Information about a tag.

Contents

Key

The key of the tag.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

Value

The value of the tag.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

TagDescription

The tags associated with a load balancer.

Contents

LoadBalancerName

The name of the load balancer.

Type: String

Required: No

Tags.member.N

The tags.

Type: Array of Tag (p. 103) objects

Array Members: Minimum number of 1 item.

Required: No

See Also

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

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

TagKeyOnly

The key of a tag.

Contents

Key

The name of the key.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Common Errors

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

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

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

HTTP Status Code: 500

InvalidAction

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

HTTP Status Code: 400

InvalidClientTokenId

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

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

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

HTTP Status Code: 400

InvalidQueryParameter

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

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

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

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

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

HTTP Status Code: 403

RequestExpired

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

HTTP Status Code: 400

ServiceUnavailable

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

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

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

HTTP Status Code: 400

Common Parameters

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

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 [Create a signed AWS API request](#) in the *IAM User Guide*.

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

Type: string

Required: Conditional

X-Amz-Date

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

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

Type: string

Required: Conditional

X-Amz-Security-Token

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

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

Type: string

Required: Conditional

X-Amz-Signature

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

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

Type: string

Required: Conditional

X-Amz-SignedHeaders

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

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

Type: string

Required: Conditional

Using Elastic Load Balancing Query Requests

Elastic Load Balancing provides APIs that you can call by submitting a Query request. Query requests are HTTP or HTTPS requests that use the HTTP verb GET or POST and a Query parameter named `Action` or `Operation` that specifies the API you are calling.

Calling the API using a Query request is the most direct way to access the web service, but requires that your application handle low-level details such as generating the hash to sign the request, and error handling. The benefit of calling the service using a Query request is that you are assured of having access to the complete functionality of the API.

> **Note**
> The Query interface used by AWS is similar to REST, but does not adhere completely to the REST principles.

Signing Query Requests

Query requests travel over the Internet using either HTTP or HTTPS, and are vulnerable to being intercepted and altered in transit. To prevent this and ensure that the incoming request is both from a valid AWS account and unaltered, AWS requires all requests to be signed.

To sign a Query request, you calculate a digital signature using a cryptographic hash function over the text of the request and your AWS secret key. A cryptographic hash is a one-way function that returns unique results based on the input. The input to the hash function includes the text of your request and your secret access key. The hash function returns a hash value that you include in the request as your signature.

When Elastic Load Balancing receives the request, it re-calculates the signature using the request text and the secret key that matches the AWS access key in the request. If the two signatures match, Elastic Load Balancing knows that the query has not been altered and that the request originated from your account. This is one reason why it is important to safeguard your private key. Any malicious user who obtains it would be able to make AWS calls, and incur charges, on your account.

For additional security, you should transmit your requests using Secure Sockets Layer (SSL) by using HTTPS. SSL encrypts the transmission, protecting your request or the response from being viewed in transit. For more information about securing your Query requests, see Making Secure Requests to Amazon Web Services.

The signature format that AWS uses has been refined over time to increase security and ease of use. Elastic Load Balancing supports Signature Version 2 and Signature Version 4. If you are creating new applications that use Elastic Load Balancing, then we recommend using Signature Version 4 for signing your query requests.

For information about how to create the signature using Signature Version 4, see Signature Version 4 Signing Process in the *AWS General Reference*.

For information about how to create the signature using Signature Version 2, see Signature Version 2 Signing Process in the *AWS General Reference*.

Regions and Endpoints for Elastic Load Balancing

The default region for the console for Elastic Load Balancing is US West (Oregon) Region and the default region for Elastic Load Balancing Query requests is US East (N. Virginia) Region. You can change the default region for the the console, the AWS CLI, and the AWS SDKs at any time.

As Elastic Load Balancing becomes available in new regions, we will add new endpoints for these regions. For the current list of supported regions and endpoints for Elastic Load Balancing, see Regions and Endpoints.

Elastic Load Balancing SOAP API

We have deprecated the SOAP API for Elastic Load Balancing. As of January 15, 2017, we no longer support SOAP requests. If you make a SOAP request, you will receive the following response:

```
Client.AccessDenied: SOAP is no longer supported
```

We recommend that you use the Query API for Elastic Load Balancing, the AWS CLI, or one of the AWS SDKs. For more information, see Accessing Elastic Load Balancing in the *Elastic Load Balancing User Guide*.