



API Reference

OpsWorks



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OpsWorks: API Reference

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Welcome

Important

The AWS OpsWorks Stacks service reached end of life on May 26, 2024 and has been disabled for both new and existing customers. We strongly recommend customers migrate their workloads to other solutions as soon as possible. If you have questions about migration, reach out to the AWS Support Team on [AWS re:Post](#) or through [AWS Premium Support](#).

Welcome to the *AWS OpsWorks Stacks API Reference*. This guide provides descriptions, syntax, and usage examples for AWS OpsWorks Stacks actions and data types, including common parameters and error codes.

AWS OpsWorks Stacks is an application management service that provides an integrated experience for managing the complete application lifecycle. For information about AWS OpsWorks, see the [AWS OpsWorks](#) information page.

SDKs and CLI

Use the AWS OpsWorks Stacks API by using the AWS Command Line Interface (CLI) or by using one of the AWS SDKs to implement applications in your preferred language. For more information, see:

- [AWS CLI](#)
- [AWS SDK for Java](#)
- [AWS SDK for .NET](#)
- [AWS SDK for PHP](#)
- [AWS SDK for Ruby](#)
- [AWS SDK for Node.js](#)
- [AWS SDK for Python \(Boto\)](#)

Endpoints

AWS OpsWorks Stacks supports the following endpoints, all HTTPS. You must connect to one of the following endpoints. Stacks can only be accessed or managed within the endpoint in which they are created.

- opsworks.us-east-1.amazonaws.com
- opsworks.us-east-2.amazonaws.com
- opsworks.us-west-1.amazonaws.com
- opsworks.us-west-2.amazonaws.com
- opsworks.ca-central-1.amazonaws.com (API only; not available in the AWS Management Console)
- opsworks.eu-west-1.amazonaws.com
- opsworks.eu-west-2.amazonaws.com
- opsworks.eu-west-3.amazonaws.com
- opsworks.eu-central-1.amazonaws.com
- opsworks.ap-northeast-1.amazonaws.com
- opsworks.ap-northeast-2.amazonaws.com
- opsworks.ap-south-1.amazonaws.com
- opsworks.ap-southeast-1.amazonaws.com
- opsworks.ap-southeast-2.amazonaws.com
- opsworks.sa-east-1.amazonaws.com

Chef Versions

When you call [CreateStack](#), [CloneStack](#), or [UpdateStack](#) we recommend you use the `ConfigurationManager` parameter to specify the Chef version. The recommended and default value for Linux stacks is currently 12. Windows stacks use Chef 12.2. For more information, see [Chef Versions](#).

Note

You can specify Chef 12, 11.10, or 11.4 for your Linux stack. We recommend migrating your existing Linux stacks to Chef 12 as soon as possible.

This document was last published on July 2, 2024.

Actions

The following actions are supported:

- [AssignInstance](#)
- [AssignVolume](#)
- [AssociateElasticIp](#)
- [AttachElasticLoadBalancer](#)
- [CloneStack](#)
- [CreateApp](#)
- [CreateDeployment](#)
- [CreateInstance](#)
- [CreateLayer](#)
- [CreateStack](#)
- [CreateUserProfile](#)
- [DeleteApp](#)
- [DeleteInstance](#)
- [DeleteLayer](#)
- [DeleteStack](#)
- [DeleteUserProfile](#)
- [DeregisterEcsCluster](#)
- [DeregisterElasticIp](#)
- [DeregisterInstance](#)
- [DeregisterRdsDbInstance](#)
- [DeregisterVolume](#)
- [DescribeAgentVersions](#)
- [DescribeApps](#)
- [DescribeCommands](#)
- [DescribeDeployments](#)
- [DescribeEcsClusters](#)
- [DescribeElasticIps](#)

- [DescribeElasticLoadBalancers](#)
- [DescribeInstances](#)
- [DescribeLayers](#)
- [DescribeLoadBasedAutoScaling](#)
- [DescribeMyUserProfile](#)
- [DescribeOperatingSystems](#)
- [DescribePermissions](#)
- [DescribeRaidArrays](#)
- [DescribeRdsDbInstances](#)
- [DescribeServiceErrors](#)
- [DescribeStackProvisioningParameters](#)
- [DescribeStacks](#)
- [DescribeStackSummary](#)
- [DescribeTimeBasedAutoScaling](#)
- [DescribeUserProfiles](#)
- [DescribeVolumes](#)
- [DetachElasticLoadBalancer](#)
- [DisassociateElasticIp](#)
- [GetHostnameSuggestion](#)
- [GrantAccess](#)
- [ListTags](#)
- [RebootInstance](#)
- [RegisterEcsCluster](#)
- [RegisterElasticIp](#)
- [RegisterInstance](#)
- [RegisterRdsDbInstance](#)
- [RegisterVolume](#)
- [SetLoadBasedAutoScaling](#)
- [SetPermission](#)
- [SetTimeBasedAutoScaling](#)

- [StartInstance](#)
- [StartStack](#)
- [StopInstance](#)
- [StopStack](#)
- [TagResource](#)
- [UnassignInstance](#)
- [UnassignVolume](#)
- [UntagResource](#)
- [UpdateApp](#)
- [UpdateElasticIp](#)
- [UpdateInstance](#)
- [UpdateLayer](#)
- [UpdateMyUserProfile](#)
- [UpdateRdsDbInstance](#)
- [UpdateStack](#)
- [UpdateUserProfile](#)
- [UpdateVolume](#)

AssignInstance

Assign a registered instance to a layer.

- You can assign registered on-premises instances to any layer type.
- You can assign registered Amazon EC2 instances only to custom layers.
- You cannot use this action with instances that were created with AWS OpsWorks Stacks.

Required Permissions: To use this action, an AWS Identity and Access Management (IAM) user must have a Manage permissions level for the stack or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "InstanceId": "string",  
  "LayerIds": [ "string" ]  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[InstanceId](#)

The instance ID.

Type: String

Required: Yes

[LayerIds](#)

The layer ID, which must correspond to a custom layer. You cannot assign a registered instance to a built-in layer.

Type: Array of strings

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

AssignVolume

Assigns one of the stack's registered Amazon EBS volumes to a specified instance. The volume must first be registered with the stack by calling [RegisterVolume](#). After you register the volume, you must call [UpdateVolume](#) to specify a mount point before calling AssignVolume. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "InstanceId": "string",
  "VolumeId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[InstanceId](#)

The instance ID.

Type: String

Required: No

[VolumeId](#)

The volume ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

AssociateElasticIp

Associates one of the stack's registered Elastic IP addresses with a specified instance. The address must first be registered with the stack by calling [RegisterElasticIp](#). For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "ElasticIp": "string",  
  "InstanceId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[ElasticIp](#)

The Elastic IP address.

Type: String

Required: Yes

[InstanceId](#)

The instance ID.

Type: String

Required: No

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

AttachElasticLoadBalancer

Attaches an Elastic Load Balancing load balancer to a specified layer. AWS OpsWorks Stacks does not support Application Load Balancer. You can only use Classic Load Balancer with AWS OpsWorks Stacks. For more information, see [Elastic Load Balancing](#).

Note

You must create the Elastic Load Balancing instance separately, by using the Elastic Load Balancing console, API, or CLI. For more information, see the [Elastic Load Balancing Developer Guide](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "ElasticLoadBalancerName": "string",
  "LayerId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[ElasticLoadBalancerName](#)

The Elastic Load Balancing instance's name.

Type: String

Required: Yes

[LayerId](#)

The ID of the layer to which the Elastic Load Balancing instance is to be attached.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

CloneStack

Creates a clone of a specified stack. For more information, see [Clone a Stack](#). By default, all parameters are set to the values used by the parent stack.

Required Permissions: To use this action, an IAM user must have an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AgentVersion": "string",
  "Attributes": {
    "string" : "string"
  },
  "ChefConfiguration": {
    "BerkshelfVersion": "string",
    "ManageBerkshelf": boolean
  },
  "CloneAppIds": [ "string" ],
  "ClonePermissions": boolean,
  "ConfigurationManager": {
    "Name": "string",
    "Version": "string"
  },
  "CustomCookbooksSource": {
    "Password": "string",
    "Revision": "string",
    "SshKey": "string",
    "Type": "string",
    "Url": "string",
    "Username": "string"
  },
  "CustomJson": "string",
  "DefaultAvailabilityZone": "string",
  "DefaultInstanceProfileArn": "string",
  "DefaultOs": "string",
  "DefaultRootDeviceType": "string",
  "DefaultSshKeyName": "string",
  "DefaultSubnetId": "string",
  "HostnameTheme": "string",
  "Name": "string",
  "Region": "string",
```

```
"ServiceRoleArn": "string",
"SourceStackId": "string",
"UseCustomCookbooks": boolean,
"UseOpsworksSecurityGroups": boolean,
"VpcId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AgentVersion

The default AWS OpsWorks Stacks agent version. You have the following options:

- Auto-update - Set this parameter to LATEST. AWS OpsWorks Stacks automatically installs new agent versions on the stack's instances as soon as they are available.
- Fixed version - Set this parameter to your preferred agent version. To update the agent version, you must edit the stack configuration and specify a new version. AWS OpsWorks Stacks automatically installs that version on the stack's instances.

The default setting is LATEST. To specify an agent version, you must use the complete version number, not the abbreviated number shown on the console. For a list of available agent version numbers, call [DescribeAgentVersions](#). AgentVersion cannot be set to Chef 12.2.

Note

You can also specify an agent version when you create or update an instance, which overrides the stack's default setting.

Type: String

Required: No

Attributes

A list of stack attributes and values as key/value pairs to be added to the cloned stack.

Type: String to string map

Valid Keys: CoLoR

Required: No

ChefConfiguration

A ChefConfiguration object that specifies whether to enable Berkshelf and the Berkshelf version on Chef 11.10 stacks. For more information, see [Create a New Stack](#).

Type: [ChefConfiguration](#) object

Required: No

CloneAppIds

A list of source stack app IDs to be included in the cloned stack.

Type: Array of strings

Required: No

ClonePermissions

Whether to clone the source stack's permissions.

Type: Boolean

Required: No

ConfigurationManager

The configuration manager. When you clone a stack we recommend that you use the configuration manager to specify the Chef version: 12, 11.10, or 11.4 for Linux stacks, or 12.2 for Windows stacks. The default value for Linux stacks is currently 12.

Type: [StackConfigurationManager](#) object

Required: No

CustomCookbooksSource

Contains the information required to retrieve an app or cookbook from a repository. For more information, see [Adding Apps](#) or [Cookbooks and Recipes](#).

Type: [Source](#) object

Required: No

CustomJson

A string that contains user-defined, custom JSON. It is used to override the corresponding default stack configuration JSON values. The string should be in the following format:

```
"{\"key1\": \"value1\", \"key2\": \"value2\", ...}\"
```

For more information about custom JSON, see [Use Custom JSON to Modify the Stack Configuration Attributes](#)

Type: String

Required: No

DefaultAvailabilityZone

The cloned stack's default Availability Zone, which must be in the specified region. For more information, see [Regions and Endpoints](#). If you also specify a value for `DefaultSubnetId`, the subnet must be in the same zone. For more information, see the `VpcId` parameter description.

Type: String

Required: No

DefaultInstanceProfileArn

The Amazon Resource Name (ARN) of an IAM profile that is the default profile for all of the stack's EC2 instances. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No


DefaultOs

The stack's operating system, which must be set to one of the following.

- A supported Linux operating system: An Amazon Linux version, such as Amazon Linux 2, Amazon Linux 2018.03, Amazon Linux 2017.09, Amazon Linux 2017.03, Amazon Linux 2016.09, Amazon Linux 2016.03, Amazon Linux 2015.09, or Amazon Linux 2015.03.
- A supported Ubuntu operating system, such as Ubuntu 18.04 LTS, Ubuntu 16.04 LTS, Ubuntu 14.04 LTS, or Ubuntu 12.04 LTS.

- CentOS Linux 7
- Red Hat Enterprise Linux 7
- Microsoft Windows Server 2012 R2 Base, Microsoft Windows Server 2012 R2 with SQL Server Express, Microsoft Windows Server 2012 R2 with SQL Server Standard, or Microsoft Windows Server 2012 R2 with SQL Server Web.
- A custom AMI: Custom. You specify the custom AMI you want to use when you create instances. For more information about how to use custom AMIs with AWS OpsWorks, see [Using Custom AMIs](#).

The default option is the parent stack's operating system. Not all operating systems are supported with all versions of Chef. For more information about supported operating systems, see [AWS OpsWorks Stacks Operating Systems](#).

 **Note**

You can specify a different Linux operating system for the cloned stack, but you cannot change from Linux to Windows or Windows to Linux.

Type: String

Required: No

[DefaultRootDeviceType](#)

The default root device type. This value is used by default for all instances in the cloned stack, but you can override it when you create an instance. For more information, see [Storage for the Root Device](#).

Type: String

Valid Values: ebs | instance-store

Required: No

[DefaultSshKeyName](#)

A default Amazon EC2 key pair name. The default value is none. If you specify a key pair name, AWS OpsWorks installs the public key on the instance and you can use the private key with an SSH client to log in to the instance. For more information, see [Using SSH to Communicate with](#)

[an Instance](#) and [Managing SSH Access](#). You can override this setting by specifying a different key pair, or no key pair, when you [create an instance](#).

Type: String

Required: No

DefaultSubnetId

The stack's default VPC subnet ID. This parameter is required if you specify a value for the VpcId parameter. All instances are launched into this subnet unless you specify otherwise when you create the instance. If you also specify a value for DefaultAvailabilityZone, the subnet must be in that zone. For information on default values and when this parameter is required, see the VpcId parameter description.

Type: String

Required: No

HostnameTheme

The stack's host name theme, with spaces are replaced by underscores. The theme is used to generate host names for the stack's instances. By default, HostnameTheme is set to Layer_Dependent, which creates host names by appending integers to the layer's short name. The other themes are:

- Baked_Goods
- Clouds
- Europe_Cities
- Fruits
- Greek_Deities_and_Titans
- Legendary_creatures_from_Japan
- Planets_and_Moons
- Roman_Deities
- Scottish_Islands
- US_Cities
- Wild_Cats

To obtain a generated host name, call `GetHostNameSuggestion`, which returns a host name based on the current theme.

Type: String

Required: No

Name

The cloned stack name. Stack names can be a maximum of 64 characters.

Type: String

Required: No

Region

The cloned stack AWS Region, such as `ap-northeast-2`. For more information about AWS Regions, see [Regions and Endpoints](#).

Type: String

Required: No

ServiceRoleArn

The stack AWS Identity and Access Management (IAM) role, which allows AWS OpsWorks Stacks to work with AWS resources on your behalf. You must set this parameter to the Amazon Resource Name (ARN) for an existing IAM role. If you create a stack by using the AWS OpsWorks Stacks console, it creates the role for you. You can obtain an existing stack's IAM ARN programmatically by calling [DescribePermissions](#). For more information about IAM ARNs, see [Using Identifiers](#).

Note

You must set this parameter to a valid service role ARN or the action will fail; there is no default value. You can specify the source stack's service role ARN, if you prefer, but you must do so explicitly.

Type: String

Required: Yes

SourceStackId

The source stack ID.

Type: String

Required: Yes

UseCustomCookbooks

Whether to use custom cookbooks.

Type: Boolean

Required: No

UseOpsworksSecurityGroups

Whether to associate the AWS OpsWorks Stacks built-in security groups with the stack's layers.

AWS OpsWorks Stacks provides a standard set of security groups, one for each layer, which are associated with layers by default. With `UseOpsworksSecurityGroups` you can instead provide your own custom security groups. `UseOpsworksSecurityGroups` has the following settings:

- True - AWS OpsWorks Stacks automatically associates the appropriate built-in security group with each layer (default setting). You can associate additional security groups with a layer after you create it but you cannot delete the built-in security group.
- False - AWS OpsWorks Stacks does not associate built-in security groups with layers. You must create appropriate Amazon EC2 security groups and associate a security group with each layer that you create. However, you can still manually associate a built-in security group with a layer on creation; custom security groups are required only for those layers that need custom settings.

For more information, see [Create a New Stack](#).

Type: Boolean

Required: No

VpcId

The ID of the VPC that the cloned stack is to be launched into. It must be in the specified region. All instances are launched into this VPC, and you cannot change the ID later.

- If your account supports EC2 Classic, the default value is no VPC.
- If your account does not support EC2 Classic, the default value is the default VPC for the specified region.

If the VPC ID corresponds to a default VPC and you have specified either the `DefaultAvailabilityZone` or the `DefaultSubnetId` parameter only, AWS OpsWorks Stacks infers the value of the other parameter. If you specify neither parameter, AWS OpsWorks Stacks sets these parameters to the first valid Availability Zone for the specified region and the corresponding default VPC subnet ID, respectively.

If you specify a nondefault VPC ID, note the following:

- It must belong to a VPC in your account that is in the specified region.
- You must specify a value for `DefaultSubnetId`.

For more information about how to use AWS OpsWorks Stacks with a VPC, see [Running a Stack in a VPC](#). For more information about default VPC and EC2 Classic, see [Supported Platforms](#).

Type: String

Required: No

Response Syntax

```
{
  "StackId": "string"
}
```

Response Elements

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

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

[StackId](#)

The cloned stack ID.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

CreateApp

Creates an app for a specified stack. For more information, see [Creating Apps](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AppSource": {
    "Password": "string",
    "Revision": "string",
    "SshKey": "string",
    "Type": "string",
    "Url": "string",
    "Username": "string"
  },
  "Attributes": {
    "string" : "string"
  },
  "DataSources": [
    {
      "Arn": "string",
      "DatabaseName": "string",
      "Type": "string"
    }
  ],
  "Description": "string",
  "Domains": [ "string" ],
  "EnableSsl": boolean,
  "Environment": [
    {
      "Key": "string",
      "Secure": boolean,
      "Value": "string"
    }
  ],
  "Name": "string",
  "Shortname": "string",
  "SslConfiguration": {
    "Certificate": "string",
```

```
    "Chain": "string",
    "PrivateKey": "string"
  },
  "StackId": "string",
  "Type": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AppSource

A Source object that specifies the app repository.

Type: [Source](#) object

Required: No

Attributes

One or more user-defined key/value pairs to be added to the stack attributes.

Type: String to string map

Valid Keys: DocumentRoot | RailsEnv | AutoBundleOnDeploy |
AwsFlowRubySettings

Required: No

DataSources

The app's data source.

Type: Array of [DataSource](#) objects

Required: No

Description

A description of the app.

Type: String

Required: No

Domains

The app virtual host settings, with multiple domains separated by commas. For example:

```
'www.example.com, example.com'
```

Type: Array of strings

Required: No

EnableSsl

Whether to enable SSL for the app.

Type: Boolean

Required: No

Environment

An array of `EnvironmentVariable` objects that specify environment variables to be associated with the app. After you deploy the app, these variables are defined on the associated app server instance. For more information, see [Environment Variables](#).

There is no specific limit on the number of environment variables. However, the size of the associated data structure - which includes the variables' names, values, and protected flag values - cannot exceed 20 KB. This limit should accommodate most if not all use cases. Exceeding it will cause an exception with the message, "Environment: is too large (maximum is 20KB)."

Note

If you have specified one or more environment variables, you cannot modify the stack's Chef version.

Type: Array of [EnvironmentVariable](#) objects

Required: No

Name

The app name.

Type: String

Required: Yes

Shortname

The app's short name.

Type: String

Required: No

SslConfiguration

An SslConfiguration object with the SSL configuration.

Type: [SslConfiguration](#) object

Required: No

StackId

The stack ID.

Type: String

Required: Yes

Type

The app type. Each supported type is associated with a particular layer. For example, PHP applications are associated with a PHP layer. AWS OpsWorks Stacks deploys an application to those instances that are members of the corresponding layer. If your app isn't one of the standard types, or you prefer to implement your own Deploy recipes, specify `other`.

Type: String

Valid Values: `aws-flow-ruby` | `java` | `rails` | `php` | `nodejs` | `static` | `other`

Required: Yes

Response Syntax

```
{
```

```
"AppId": "string"  
}
```

Response Elements

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

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

AppId

The app ID.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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 v2](#)

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

CreateDeployment

Runs deployment or stack commands. For more information, see [Deploying Apps](#) and [Run Stack Commands](#).

Required Permissions: To use this action, an IAM user must have a Deploy or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AppId": "string",
  "Command": {
    "Args": {
      "string" : [ "string" ]
    },
    "Name": "string"
  },
  "Comment": "string",
  "CustomJson": "string",
  "InstanceIds": [ "string" ],
  "LayerIds": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[AppId](#)

The app ID. This parameter is required for app deployments, but not for other deployment commands.

Type: String

Required: No

Command

A DeploymentCommand object that specifies the deployment command and any associated arguments.

Type: [DeploymentCommand](#) object

Required: Yes

Comment

A user-defined comment.

Type: String

Required: No

CustomJson

A string that contains user-defined, custom JSON. You can use this parameter to override some corresponding default stack configuration JSON values. The string should be in the following format:

```
"{\"key1\": \"value1\", \"key2\": \"value2\", ...}\"
```

For more information about custom JSON, see [Use Custom JSON to Modify the Stack Configuration Attributes](#) and [Overriding Attributes With Custom JSON](#).

Type: String

Required: No

InstanceIds

The instance IDs for the deployment targets.

Type: Array of strings

Required: No

LayerIds

The layer IDs for the deployment targets.

Type: Array of strings

Required: No

StackId

The stack ID.

Type: String

Required: Yes

Response Syntax

```
{  
  "DeploymentId": "string"  
}
```

Response Elements

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

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

DeploymentId

The deployment ID, which can be used with other requests to identify the deployment.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

CreateInstance

Creates an instance in a specified stack. For more information, see [Adding an Instance to a Layer](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AgentVersion": "string",
  "AmiId": "string",
  "Architecture": "string",
  "AutoScalingType": "string",
  "AvailabilityZone": "string",
  "BlockDeviceMappings": [
    {
      "DeviceName": "string",
      "Ebs": {
        "DeleteOnTermination": boolean,
        "Iops": number,
        "SnapshotId": "string",
        "VolumeSize": number,
        "VolumeType": "string"
      },
      "NoDevice": "string",
      "VirtualName": "string"
    }
  ],
  "EbsOptimized": boolean,
  "Hostname": "string",
  "InstallUpdatesOnBoot": boolean,
  "InstanceType": "string",
  "LayerIds": [ "string" ],
  "Os": "string",
  "RootDeviceType": "string",
  "SshKeyName": "string",
  "StackId": "string",
  "SubnetId": "string",
  "Tenancy": "string",
  "VirtualizationType": "string"
```

```
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[AgentVersion](#)

The default AWS OpsWorks Stacks agent version. You have the following options:

- INHERIT - Use the stack's default agent version setting.
- *version_number* - Use the specified agent version. This value overrides the stack's default setting. To update the agent version, edit the instance configuration and specify a new version. AWS OpsWorks Stacks installs that version on the instance.

The default setting is INHERIT. To specify an agent version, you must use the complete version number, not the abbreviated number shown on the console. For a list of available agent version numbers, call [DescribeAgentVersions](#). AgentVersion cannot be set to Chef 12.2.

Type: String

Required: No

[Amild](#)

A custom AMI ID to be used to create the instance. The AMI should be based on one of the supported operating systems. For more information, see [Using Custom AMIs](#).

Note

If you specify a custom AMI, you must set Os to Custom.

Type: String

Required: No

[Architecture](#)

The instance architecture. The default option is x86_64. Instance types do not necessarily support both architectures. For a list of the architectures that are supported by the different instance types, see [Instance Families and Types](#).

Type: String

Valid Values: x86_64 | i386

Required: No

AutoScalingType

For load-based or time-based instances, the type. Windows stacks can use only time-based instances.

Type: String

Valid Values: load | timer

Required: No

AvailabilityZone

The instance Availability Zone. For more information, see [Regions and Endpoints](#).

Type: String

Required: No

BlockDeviceMappings

An array of `BlockDeviceMapping` objects that specify the instance's block devices. For more information, see [Block Device Mapping](#). Note that block device mappings are not supported for custom AMIs.

Type: Array of [BlockDeviceMapping](#) objects

Required: No

EbsOptimized

Whether to create an Amazon EBS-optimized instance.

Type: Boolean

Required: No

Hostname

The instance host name. The following are character limits for instance host names.

- Linux-based instances: 63 characters
- Windows-based instances: 15 characters

Type: String

Required: No

InstallUpdatesOnBoot

Whether to install operating system and package updates when the instance boots. The default value is `true`. To control when updates are installed, set this value to `false`. You must then update your instances manually by using [CreateDeployment](#) to run the `update_dependencies` stack command or by manually running `yum` (Amazon Linux) or `apt-get` (Ubuntu) on the instances.

Note

We strongly recommend using the default value of `true` to ensure that your instances have the latest security updates.

Type: Boolean

Required: No

InstanceType

The instance type, such as `t2.micro`. For a list of supported instance types, open the stack in the console, choose **Instances**, and choose **+ Instance**. The **Size** list contains the currently supported types. For more information, see [Instance Families and Types](#). The parameter values that you use to specify the various types are in the **API Name** column of the **Available Instance Types** table.

Type: String

Required: Yes

LayerIds

An array that contains the instance's layer IDs.

Type: Array of strings

Required: Yes

Os

The instance's operating system, which must be set to one of the following.

- A supported Linux operating system: An Amazon Linux version, such as Amazon Linux 2, Amazon Linux 2018.03, Amazon Linux 2017.09, Amazon Linux 2017.03, Amazon Linux 2016.09, Amazon Linux 2016.03, Amazon Linux 2015.09, or Amazon Linux 2015.03.
- A supported Ubuntu operating system, such as Ubuntu 18.04 LTS, Ubuntu 16.04 LTS, Ubuntu 14.04 LTS, or Ubuntu 12.04 LTS.
- CentOS Linux 7
- Red Hat Enterprise Linux 7
- A supported Windows operating system, such as Microsoft Windows Server 2012 R2 Base, Microsoft Windows Server 2012 R2 with SQL Server Express, Microsoft Windows Server 2012 R2 with SQL Server Standard, or Microsoft Windows Server 2012 R2 with SQL Server Web.
- A custom AMI: Custom.

Not all operating systems are supported with all versions of Chef. For more information about the supported operating systems, see [AWS OpsWorks Stacks Operating Systems](#).

The default option is the current Amazon Linux version. If you set this parameter to Custom, you must use the [CreateInstance](#) action's `Amild` parameter to specify the custom AMI that you want to use. Block device mappings are not supported if the value is Custom. For more information about how to use custom AMIs with AWS OpsWorks Stacks, see [Using Custom AMIs](#).

Type: String

Required: No

RootDeviceType

The instance root device type. For more information, see [Storage for the Root Device](#).

Type: String

Valid Values: `ebs` | `instance-store`

Required: No

SshKeyName

The instance's Amazon EC2 key-pair name.

Type: String

Required: No

StackId

The stack ID.

Type: String

Required: Yes

SubnetId

The ID of the instance's subnet. If the stack is running in a VPC, you can use this parameter to override the stack's default subnet ID value and direct AWS OpsWorks Stacks to launch the instance in a different subnet.

Type: String

Required: No

Tenancy

The instance's tenancy option. The default option is no tenancy, or if the instance is running in a VPC, inherit tenancy settings from the VPC. The following are valid values for this parameter: `dedicated`, `default`, or `host`. Because there are costs associated with changes in tenancy options, we recommend that you research tenancy options before choosing them for your instances. For more information about dedicated hosts, see [Dedicated Hosts Overview](#) and [Amazon EC2 Dedicated Hosts](#). For more information about dedicated instances, see [Dedicated Instances](#) and [Amazon EC2 Dedicated Instances](#).

Type: String

Required: No

VirtualizationType

The instance's virtualization type, `paravirtual` or `hvm`.

Type: String

Required: No

Response Syntax

```
{  
  "InstanceId": "string"  
}
```

Response Elements

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

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

InstanceId

The instance ID.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

CreateLayer

Creates a layer. For more information, see [How to Create a Layer](#).

Note

You should use **CreateLayer** for noncustom layer types such as PHP App Server only if the stack does not have an existing layer of that type. A stack can have at most one instance of each noncustom layer; if you attempt to create a second instance, **CreateLayer** fails. A stack can have an arbitrary number of custom layers, so you can call **CreateLayer** as many times as you like for that layer type.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "Attributes": {
    "string" : "string"
  },
  "AutoAssignElasticIps": boolean,
  "AutoAssignPublicIps": boolean,
  "CloudWatchLogsConfiguration": {
    "Enabled": boolean,
    "LogStreams": [
      {
        "BatchCount": number,
        "BatchSize": number,
        "BufferDuration": number,
        "DatetimeFormat": "string",
        "Encoding": "string",
        "File": "string",
        "FileFingerprintLines": "string",
        "InitialPosition": "string",
        "LogGroupName": "string",
        "MultiLineStartPattern": "string",
        "TimeZone": "string"
      }
    ]
  }
}
```

```

    }
  ]
},
"CustomInstanceProfileArn": "string",
"CustomJson": "string",
"CustomRecipes": {
  "Configure": [ "string" ],
  "Deploy": [ "string" ],
  "Setup": [ "string" ],
  "Shutdown": [ "string" ],
  "Undeploy": [ "string" ]
},
"CustomSecurityGroupIds": [ "string" ],
"EnableAutoHealing": boolean,
"InstallUpdatesOnBoot": boolean,
"LifecycleEventConfiguration": {
  "Shutdown": {
    "DelayUntilElbConnectionsDrained": boolean,
    "ExecutionTimeout": number
  }
},
"Name": "string",
"Packages": [ "string" ],
"Shortname": "string",
"StackId": "string",
"Type": "string",
"UseEbsOptimizedInstances": boolean,
"VolumeConfigurations": [
  {
    "Encrypted": boolean,
    "Iops": number,
    "MountPoint": "string",
    "NumberOfDisks": number,
    "RaidLevel": number,
    "Size": number,
    "VolumeType": "string"
  }
]
}

```

Request Parameters

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

The request accepts the following data in JSON format.

Attributes

One or more user-defined key-value pairs to be added to the stack attributes.

To create a cluster layer, set the `EcsClusterArn` attribute to the cluster's ARN.

Type: String to string map

Valid Keys: `EcsClusterArn` | `EnableHaproxyStats` | `HaproxyStatsUrl` | `HaproxyStatsUser` | `HaproxyStatsPassword` | `HaproxyHealthCheckUrl` | `HaproxyHealthCheckMethod` | `MysqlRootPassword` | `MysqlRootPasswordUbiquitous` | `GangliaUrl` | `GangliaUser` | `GangliaPassword` | `MemcachedMemory` | `NodejsVersion` | `RubyVersion` | `RubygemsVersion` | `ManageBundler` | `BundlerVersion` | `RailsStack` | `PassengerVersion` | `Jvm` | `JvmVersion` | `JvmOptions` | `JavaAppServer` | `JavaAppServerVersion`

Required: No

AutoAssignElasticIps

Whether to automatically assign an [Elastic IP address](#) to the layer's instances. For more information, see [How to Edit a Layer](#).

Type: Boolean

Required: No

AutoAssignPublicIps

For stacks that are running in a VPC, whether to automatically assign a public IP address to the layer's instances. For more information, see [How to Edit a Layer](#).

Type: Boolean

Required: No

CloudWatchLogsConfiguration

Specifies CloudWatch Logs configuration options for the layer. For more information, see [CloudWatchLogsLogStream](#).

Type: [CloudWatchLogsConfiguration](#) object

Required: No

[CustomInstanceProfileArn](#)

The ARN of an IAM profile to be used for the layer's EC2 instances. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No

[CustomJson](#)

A JSON-formatted string containing custom stack configuration and deployment attributes to be installed on the layer's instances. For more information, see [Using Custom JSON](#). This feature is supported as of version 1.7.42 of the AWS CLI.

Type: String

Required: No

[CustomRecipes](#)

A `LayerCustomRecipes` object that specifies the layer custom recipes.

Type: [Recipes](#) object

Required: No

[CustomSecurityGroupIds](#)

An array containing the layer custom security group IDs.

Type: Array of strings

Required: No

[EnableAutoHealing](#)

Whether to disable auto healing for the layer.

Type: Boolean

Required: No

InstallUpdatesOnBoot

Whether to install operating system and package updates when the instance boots. The default value is `true`. To control when updates are installed, set this value to `false`. You must then update your instances manually by using [CreateDeployment](#) to run the `update_dependencies` stack command or by manually running `yum` (Amazon Linux) or `apt-get` (Ubuntu) on the instances.

Note

To ensure that your instances have the latest security updates, we strongly recommend using the default value of `true`.

Type: Boolean

Required: No

LifecycleEventConfiguration

A `LifeCycleEventConfiguration` object that you can use to configure the Shutdown event to specify an execution timeout and enable or disable Elastic Load Balancer connection draining.

Type: [LifecycleEventConfiguration](#) object

Required: No

Name

The layer name, which is used by the console. Layer names can be a maximum of 32 characters.

Type: String

Required: Yes

Packages

An array of `Package` objects that describes the layer packages.

Type: Array of strings

Required: No

Shortname

For custom layers only, use this parameter to specify the layer's short name, which is used internally by AWS OpsWorks Stacks and by Chef recipes. The short name is also used as the name for the directory where your app files are installed. It can have a maximum of 32 characters, which are limited to the alphanumeric characters, '-', '_', and '.'.

Built-in layer short names are defined by AWS OpsWorks Stacks. For more information, see the [Layer Reference](#).

Type: String

Required: Yes

StackId

The layer stack ID.

Type: String

Required: Yes

Type

The layer type. A stack cannot have more than one built-in layer of the same type. It can have any number of custom layers. Built-in layers are not available in Chef 12 stacks.

Type: String

Valid Values: `aws-flow-ruby` | `ecs-cluster` | `java-app` | `lb` | `web` | `php-app` | `rails-app` | `nodejs-app` | `memcached` | `db-master` | `monitoring-master` | `custom`

Required: Yes

UseEbsOptimizedInstances

Whether to use Amazon EBS-optimized instances.

Type: Boolean

Required: No

VolumeConfigurations

A VolumeConfigurations object that describes the layer's Amazon EBS volumes.

Type: Array of [VolumeConfiguration](#) objects

Required: No

Response Syntax

```
{  
  "LayerId": "string"  
}
```

Response Elements

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

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

LayerId

The layer ID.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

CreateStack

Creates a new stack. For more information, see [Create a New Stack](#).

Required Permissions: To use this action, an IAM user must have an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AgentVersion": "string",
  "Attributes": {
    "string" : "string"
  },
  "ChefConfiguration": {
    "BerkshelfVersion": "string",
    "ManageBerkshelf": boolean
  },
  "ConfigurationManager": {
    "Name": "string",
    "Version": "string"
  },
  "CustomCookbooksSource": {
    "Password": "string",
    "Revision": "string",
    "SshKey": "string",
    "Type": "string",
    "Url": "string",
    "Username": "string"
  },
  "CustomJson": "string",
  "DefaultAvailabilityZone": "string",
  "DefaultInstanceProfileArn": "string",
  "DefaultOs": "string",
  "DefaultRootDeviceType": "string",
  "DefaultSshKeyName": "string",
  "DefaultSubnetId": "string",
  "HostnameTheme": "string",
  "Name": "string",
  "Region": "string",
  "ServiceRoleArn": "string",
  "UseCustomCookbooks": boolean,
  "UseOpsworksSecurityGroups": boolean,
```

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

Request Parameters

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

The request accepts the following data in JSON format.

[AgentVersion](#)

The default AWS OpsWorks Stacks agent version. You have the following options:

- Auto-update - Set this parameter to LATEST. AWS OpsWorks Stacks automatically installs new agent versions on the stack's instances as soon as they are available.
- Fixed version - Set this parameter to your preferred agent version. To update the agent version, you must edit the stack configuration and specify a new version. AWS OpsWorks Stacks installs that version on the stack's instances.

The default setting is the most recent release of the agent. To specify an agent version, you must use the complete version number, not the abbreviated number shown on the console. For a list of available agent version numbers, call [DescribeAgentVersions](#). AgentVersion cannot be set to Chef 12.2.

Note

You can also specify an agent version when you create or update an instance, which overrides the stack's default setting.

Type: String

Required: No

[Attributes](#)

One or more user-defined key-value pairs to be added to the stack attributes.

Type: String to string map

Valid Keys: Color

Required: No

ChefConfiguration

A `ChefConfiguration` object that specifies whether to enable Berkshelf and the Berkshelf version on Chef 11.10 stacks. For more information, see [Create a New Stack](#).

Type: [ChefConfiguration](#) object

Required: No

ConfigurationManager

The configuration manager. When you create a stack we recommend that you use the configuration manager to specify the Chef version: 12, 11.10, or 11.4 for Linux stacks, or 12.2 for Windows stacks. The default value for Linux stacks is currently 12.

Type: [StackConfigurationManager](#) object

Required: No

CustomCookbooksSource

Contains the information required to retrieve an app or cookbook from a repository. For more information, see [Adding Apps](#) or [Cookbooks and Recipes](#).

Type: [Source](#) object

Required: No

CustomJson

A string that contains user-defined, custom JSON. It can be used to override the corresponding default stack configuration attribute values or to pass data to recipes. The string should be in the following format:

```
"{\"key1\": \"value1\", \"key2\": \"value2\", ...}\"
```

For more information about custom JSON, see [Use Custom JSON to Modify the Stack Configuration Attributes](#).

Type: String

Required: No

DefaultAvailabilityZone

The stack's default Availability Zone, which must be in the specified region. For more information, see [Regions and Endpoints](#). If you also specify a value for `DefaultSubnetId`, the subnet must be in the same zone. For more information, see the `VpcId` parameter description.

Type: String

Required: No

DefaultInstanceProfileArn

The Amazon Resource Name (ARN) of an IAM profile that is the default profile for all of the stack's EC2 instances. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: Yes

DefaultOs

The stack's default operating system, which is installed on every instance unless you specify a different operating system when you create the instance. You can specify one of the following.

- A supported Linux operating system: An Amazon Linux version, such as Amazon Linux 2, Amazon Linux 2018.03, Amazon Linux 2017.09, Amazon Linux 2017.03, Amazon Linux 2016.09, Amazon Linux 2016.03, Amazon Linux 2015.09, or Amazon Linux 2015.03.
- A supported Ubuntu operating system, such as Ubuntu 18.04 LTS, Ubuntu 16.04 LTS, Ubuntu 14.04 LTS, or Ubuntu 12.04 LTS.
- CentOS Linux 7
- Red Hat Enterprise Linux 7
- A supported Windows operating system, such as Microsoft Windows Server 2012 R2 Base, Microsoft Windows Server 2012 R2 with SQL Server Express, Microsoft Windows Server 2012 R2 with SQL Server Standard, or Microsoft Windows Server 2012 R2 with SQL Server Web.
- A custom AMI: Custom. You specify the custom AMI you want to use when you create instances. For more information, see [Using Custom AMIs](#).

The default option is the current Amazon Linux version. Not all operating systems are supported with all versions of Chef. For more information about supported operating systems, see [AWS OpsWorks Stacks Operating Systems](#).

Type: String

Required: No

DefaultRootDeviceType

The default root device type. This value is the default for all instances in the stack, but you can override it when you create an instance. The default option is `instance-store`. For more information, see [Storage for the Root Device](#).

Type: String

Valid Values: `ebs` | `instance-store`

Required: No

DefaultSshKeyName

A default Amazon EC2 key pair name. The default value is none. If you specify a key pair name, AWS OpsWorks installs the public key on the instance and you can use the private key with an SSH client to log in to the instance. For more information, see [Using SSH to Communicate with an Instance](#) and [Managing SSH Access](#). You can override this setting by specifying a different key pair, or no key pair, when you [create an instance](#).

Type: String

Required: No

DefaultSubnetId

The stack's default VPC subnet ID. This parameter is required if you specify a value for the `VpcId` parameter. All instances are launched into this subnet unless you specify otherwise when you create the instance. If you also specify a value for `DefaultAvailabilityZone`, the subnet must be in that zone. For information on default values and when this parameter is required, see the `VpcId` parameter description.

Type: String

Required: No

HostnameTheme

The stack's host name theme, with spaces replaced by underscores. The theme is used to generate host names for the stack's instances. By default, `HostnameTheme` is set to `Layer_Dependent`, which creates host names by appending integers to the layer's short name. The other themes are:

- `Baked_Goods`
- `Clouds`
- `Europe_Cities`
- `Fruits`
- `Greek_Deities_and_Titans`
- `Legendary_creatures_from_Japan`
- `Planets_and_Moons`
- `Roman_Deities`
- `Scottish_Islands`
- `US_Cities`
- `Wild_Cats`

To obtain a generated host name, call `GetHostNameSuggestion`, which returns a host name based on the current theme.

Type: String

Required: No

Name

The stack name. Stack names can be a maximum of 64 characters.

Type: String

Required: Yes

Region

The stack's AWS Region, such as `ap-south-1`. For more information about AWS Regions, see [Regions and Endpoints](#).

Note

In the AWS CLI, this API maps to the `--stack-region` parameter. If the `--stack-region` parameter and the AWS CLI common parameter `--region` are set to the same value, the stack uses a *regional* endpoint. If the `--stack-region` parameter is not set, but the AWS CLI `--region` parameter is, this also results in a stack with a *regional* endpoint. However, if the `--region` parameter is set to `us-east-1`, and the `--stack-region` parameter is set to one of the following, then the stack uses a legacy or *classic* region: `us-west-1`, `us-west-2`, `sa-east-1`, `eu-central-1`, `eu-west-1`, `ap-northeast-1`, `ap-southeast-1`, `ap-southeast-2`. In this case, the actual API endpoint of the stack is in `us-east-1`. Only the preceding regions are supported as classic regions in the `us-east-1` API endpoint. Because it is a best practice to choose the regional endpoint that is closest to where you manage AWS, we recommend that you use regional endpoints for new stacks. The AWS CLI common `--region` parameter always specifies a regional API endpoint; it cannot be used to specify a classic AWS OpsWorks Stacks region.

Type: String

Required: Yes

ServiceRoleArn

The stack's IAM role, which allows AWS OpsWorks Stacks to work with AWS resources on your behalf. You must set this parameter to the Amazon Resource Name (ARN) for an existing IAM role. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: Yes

UseCustomCookbooks

Whether the stack uses custom cookbooks.

Type: Boolean

Required: No

UseOpsworksSecurityGroups

Whether to associate the AWS OpsWorks Stacks built-in security groups with the stack's layers.

AWS OpsWorks Stacks provides a standard set of built-in security groups, one for each layer, which are associated with layers by default. With `UseOpsworksSecurityGroups` you can instead provide your own custom security groups. `UseOpsworksSecurityGroups` has the following settings:

- **True** - AWS OpsWorks Stacks automatically associates the appropriate built-in security group with each layer (default setting). You can associate additional security groups with a layer after you create it, but you cannot delete the built-in security group.
- **False** - AWS OpsWorks Stacks does not associate built-in security groups with layers. You must create appropriate EC2 security groups and associate a security group with each layer that you create. However, you can still manually associate a built-in security group with a layer on creation; custom security groups are required only for those layers that need custom settings.

For more information, see [Create a New Stack](#).

Type: Boolean

Required: No

VpcId

The ID of the VPC that the stack is to be launched into. The VPC must be in the stack's region. All instances are launched into this VPC. You cannot change the ID later.

- If your account supports EC2-Classic, the default value is no VPC.
- If your account does not support EC2-Classic, the default value is the default VPC for the specified region.

If the VPC ID corresponds to a default VPC and you have specified either the `DefaultAvailabilityZone` or the `DefaultSubnetId` parameter only, AWS OpsWorks Stacks infers the value of the other parameter. If you specify neither parameter, AWS OpsWorks Stacks sets these parameters to the first valid Availability Zone for the specified region and the corresponding default VPC subnet ID, respectively.

If you specify a nondefault VPC ID, note the following:

- It must belong to a VPC in your account that is in the specified region.
- You must specify a value for `DefaultSubnetId`.

For more information about how to use AWS OpsWorks Stacks with a VPC, see [Running a Stack in a VPC](#). For more information about default VPC and EC2-Classic, see [Supported Platforms](#).

Type: String

Required: No

Response Syntax

```
{  
  "StackId": "string"  
}
```

Response Elements

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

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

StackId

The stack ID, which is an opaque string that you use to identify the stack when performing actions such as DescribeStacks.

Type: String

Errors

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

ValidationException

Indicates that a request was not valid.

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

CreateUserProfile

Creates a new user profile.

Required Permissions: To use this action, an IAM user must have an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "AllowSelfManagement": boolean,  
  "IamUserArn": "string",  
  "SshPublicKey": "string",  
  "SshUsername": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[AllowSelfManagement](#)

Whether users can specify their own SSH public key through the My Settings page. For more information, see [Setting an IAM User's Public SSH Key](#).

Type: Boolean

Required: No

[IamUserArn](#)

The user's IAM ARN; this can also be a federated user's ARN.

Type: String

Required: Yes

[SshPublicKey](#)

The user's public SSH key.

Type: String

Required: No

SshUsername

The user's SSH user name. The allowable characters are [a-z], [A-Z], [0-9], '-', and '_'. If the specified name includes other punctuation marks, AWS OpsWorks Stacks removes them. For example, my . name is changed to myname. If you do not specify an SSH user name, AWS OpsWorks Stacks generates one from the IAM user name.

Type: String

Required: No

Response Syntax

```
{  
  "IamUserArn": "string"  
}
```

Response Elements

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

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

IamUserArn

The user's IAM ARN.

Type: String

Errors

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

ValidationException

Indicates that a request was not valid.

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

DeleteApp

Deletes a specified app.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "AppId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AppId

The app ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeleteInstance

Deletes a specified instance, which terminates the associated Amazon EC2 instance. You must stop an instance before you can delete it.

For more information, see [Deleting Instances](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "DeleteElasticIp": boolean,  
  "DeleteVolumes": boolean,  
  "InstanceId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[DeleteElasticIp](#)

Whether to delete the instance Elastic IP address.

Type: Boolean

Required: No

[DeleteVolumes](#)

Whether to delete the instance's Amazon EBS volumes.

Type: Boolean

Required: No

[InstanceId](#)

The instance ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeleteLayer

Deletes a specified layer. You must first stop and then delete all associated instances or unassign registered instances. For more information, see [How to Delete a Layer](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "LayerId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[LayerId](#)

The layer ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeleteStack

Deletes a specified stack. You must first delete all instances, layers, and apps or deregister registered instances. For more information, see [Shut Down a Stack](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "StackId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[StackId](#)

The stack ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeleteUserProfile

Deletes a user profile.

Required Permissions: To use this action, an IAM user must have an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "IamUserArn": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[IamUserArn](#)

The user's IAM ARN. This can also be a federated user's ARN.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeregisterEcsCluster

Deregisters a specified Amazon ECS cluster from a stack. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack or an attached policy that explicitly grants permissions. For more information on user permissions, see <https://docs.aws.amazon.com/opsworks/latest/userguide/opsworks-security-users.html>.

Request Syntax

```
{  
  "EcsClusterArn": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[EcsClusterArn](#)

The cluster's Amazon Resource Number (ARN).

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeregisterElasticIp

Deregisters a specified Elastic IP address. The address can be registered by another stack after it is deregistered. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "ElasticIp": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[ElasticIp](#)

The Elastic IP address.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeregisterInstance

Deregister an instance from AWS OpsWorks Stacks. The instance can be a registered instance (Amazon EC2 or on-premises) or an instance created with AWS OpsWorks. This action removes the instance from the stack and returns it to your control.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "InstanceId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[InstanceId](#)

The instance ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeregisterRdsDbInstance

Deregisters an Amazon RDS instance.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "RdsDbInstanceArn": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[RdsDbInstanceArn](#)

The Amazon RDS instance's ARN.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DeregisterVolume

Deregisters an Amazon EBS volume. The volume can then be registered by another stack. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "VolumeId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[VolumeId](#)

The AWS OpsWorks Stacks volume ID, which is the GUID that AWS OpsWorks Stacks assigned to the instance when you registered the volume with the stack, not the Amazon EC2 volume ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeAgentVersions

Describes the available AWS OpsWorks Stacks agent versions. You must specify a stack ID or a configuration manager. DescribeAgentVersions returns a list of available agent versions for the specified stack or configuration manager.

Request Syntax

```
{
  "ConfigurationManager": {
    "Name": "string",
    "Version": "string"
  },
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

ConfigurationManager

The configuration manager.

Type: [StackConfigurationManager](#) object

Required: No

StackId

The stack ID.

Type: String

Required: No

Response Syntax

```
{
```



```
"AgentVersions": [  
  {  
    "ConfigurationManager": {  
      "Name": "string",  
      "Version": "string"  
    },  
    "Version": "string"  
  }  
]
```

Response Elements

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

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

AgentVersions

The agent versions for the specified stack or configuration manager. Note that this value is the complete version number, not the abbreviated number used by the console.

Type: Array of [AgentVersion](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeApps

Requests a description of a specified set of apps.

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AppIds": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AppIds

An array of app IDs for the apps to be described. If you use this parameter, DescribeApps returns a description of the specified apps. Otherwise, it returns a description of every app.

Type: Array of strings

Required: No

StackId

The app stack ID. If you use this parameter, DescribeApps returns a description of the apps in the specified stack.

Type: String

Required: No

Response Syntax

```
{
  "Apps": [
    {
      "AppId": "string",
      "AppSource": {
        "Password": "string",
        "Revision": "string",
        "SshKey": "string",
        "Type": "string",
        "Url": "string",
        "Username": "string"
      },
      "Attributes": {
        "string" : "string"
      },
      "CreatedAt": "string",
      "DataSources": [
        {
          "Arn": "string",
          "DatabaseName": "string",
          "Type": "string"
        }
      ],
      "Description": "string",
      "Domains": [ "string" ],
      "EnableSsl": boolean,
      "Environment": [
        {
          "Key": "string",
          "Secure": boolean,
          "Value": "string"
        }
      ],
      "Name": "string",
      "Shortname": "string",
      "SslConfiguration": {
        "Certificate": "string",
```

```
    "Chain": "string",
    "PrivateKey": "string"
  },
  "StackId": "string",
  "Type": "string"
}
]
```

Response Elements

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

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

Apps

An array of App objects that describe the specified apps.

Type: Array of [App](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeCommands

Describes the results of specified commands.

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "CommandIds": [ "string" ],
  "DeploymentId": "string",
  "InstanceId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

CommandIds

An array of command IDs. If you include this parameter, DescribeCommands returns a description of the specified commands. Otherwise, it returns a description of every command.

Type: Array of strings

Required: No

DeploymentId

The deployment ID. If you include this parameter, DescribeCommands returns a description of the commands associated with the specified deployment.

Type: String

Required: No

InstanceId

The instance ID. If you include this parameter, `DescribeCommands` returns a description of the commands associated with the specified instance.

Type: String

Required: No

Response Syntax

```
{
  "Commands": [
    {
      "AcknowledgedAt": "string",
      "CommandId": "string",
      "CompletedAt": "string",
      "CreatedAt": "string",
      "DeploymentId": "string",
      "ExitCode": number,
      "InstanceId": "string",
      "LogUrl": "string",
      "Status": "string",
      "Type": "string"
    }
  ]
}
```

Response Elements

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

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

Commands

An array of Command objects that describe each of the specified commands.

Type: Array of Command objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeDeployments

Requests a description of a specified set of deployments.

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AppId": "string",
  "DeploymentIds": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AppId

The app ID. If you include this parameter, the command returns a description of the commands associated with the specified app.

Type: String

Required: No

DeploymentIds

An array of deployment IDs to be described. If you include this parameter, the command returns a description of the specified deployments. Otherwise, it returns a description of every deployment.

Type: Array of strings

Required: No

StackId

The stack ID. If you include this parameter, the command returns a description of the commands associated with the specified stack.

Type: String

Required: No

Response Syntax

```
{
  "Deployments": [
    {
      "AppId": "string",
      "Command": {
        "Args": {
          "string" : [ "string" ]
        },
        "Name": "string"
      },
      "Comment": "string",
      "CompletedAt": "string",
      "CreatedAt": "string",
      "CustomJson": "string",
      "DeploymentId": "string",
      "Duration": number,
      "IamUserArn": "string",
      "InstanceIds": [ "string" ],
      "StackId": "string",
      "Status": "string"
    }
  ]
}
```

Response Elements

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

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

Deployments

An array of Deployment objects that describe the deployments.

Type: Array of [Deployment](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeEcsClusters

Describes Amazon ECS clusters that are registered with a stack. If you specify only a stack ID, you can use the `MaxResults` and `NextToken` parameters to paginate the response. However, AWS OpsWorks Stacks currently supports only one cluster per layer, so the result set has a maximum of one element.

Required Permissions: To use this action, an IAM user must have a `Show`, `Deploy`, or `Manage` permissions level for the stack or an attached policy that explicitly grants permission. For more information about user permissions, see [Managing User Permissions](#).

This call accepts only one resource-identifying parameter.

Request Syntax

```
{
  "EcsClusterArns": [ "string" ],
  "MaxResults": number,
  "NextToken": "string",
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[EcsClusterArns](#)

A list of ARNs, one for each cluster to be described.

Type: Array of strings

Required: No

[MaxResults](#)

To receive a paginated response, use this parameter to specify the maximum number of results to be returned with a single call. If the number of available results exceeds this maximum, the response includes a `NextToken` value that you can assign to the `NextToken` request parameter to get the next set of results.

Type: Integer

Required: No

NextToken

If the previous paginated request did not return all of the remaining results, the response object's `NextToken` parameter value is set to a token. To retrieve the next set of results, call `DescribeEcsClusters` again and assign that token to the request object's `NextToken` parameter. If there are no remaining results, the previous response object's `NextToken` parameter is set to `null`.

Type: String

Required: No

StackId

A stack ID. `DescribeEcsClusters` returns a description of the cluster that is registered with the stack.

Type: String

Required: No

Response Syntax

```
{
  "EcsClusters": [
    {
      "EcsClusterArn": "string",
      "EcsClusterName": "string",
      "RegisteredAt": "string",
      "StackId": "string"
    }
  ],
  "NextToken": "string"
}
```

Response Elements

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

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

EcsClusters

A list of `EcsCluster` objects containing the cluster descriptions.

Type: Array of [EcsCluster](#) objects

NextToken

If a paginated request does not return all of the remaining results, this parameter is set to a token that you can assign to the request object's `NextToken` parameter to retrieve the next set of results. If the previous paginated request returned all of the remaining results, this parameter is set to `null`.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeElasticIps

Describes [Elastic IP addresses](#).

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "InstanceId": "string",
  "Ips": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[InstanceId](#)

The instance ID. If you include this parameter, `DescribeElasticIps` returns a description of the Elastic IP addresses associated with the specified instance.

Type: String

Required: No

[Ips](#)

An array of Elastic IP addresses to be described. If you include this parameter, `DescribeElasticIps` returns a description of the specified Elastic IP addresses. Otherwise, it returns a description of every Elastic IP address.

Type: Array of strings

Required: No

StackId

A stack ID. If you include this parameter, `DescribeElasticIps` returns a description of the Elastic IP addresses that are registered with the specified stack.

Type: String

Required: No

Response Syntax

```
{
  "ElasticIps": [
    {
      "Domain": "string",
      "InstanceId": "string",
      "Ip": "string",
      "Name": "string",
      "Region": "string"
    }
  ]
}
```

Response Elements

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

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

ElasticIps

An `ElasticIps` object that describes the specified Elastic IP addresses.

Type: Array of [ElasticIp](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeElasticLoadBalancers

Describes a stack's Elastic Load Balancing instances.

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "LayerIds": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

LayerIds

A list of layer IDs. The action describes the Elastic Load Balancing instances for the specified layers.

Type: Array of strings

Required: No

StackId

A stack ID. The action describes the stack's Elastic Load Balancing instances.

Type: String

Required: No

Response Syntax

```
{
  "ElasticLoadBalancers": [
    {
      "AvailabilityZones": [ "string" ],
      "DnsName": "string",
      "Ec2InstanceIds": [ "string" ],
      "ElasticLoadBalancerName": "string",
      "LayerId": "string",
      "Region": "string",
      "StackId": "string",
      "SubnetIds": [ "string" ],
      "VpcId": "string"
    }
  ]
}
```

Response Elements

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

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

ElasticLoadBalancers

A list of `ElasticLoadBalancer` objects that describe the specified Elastic Load Balancing instances.

Type: Array of [ElasticLoadBalancer](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeInstances

Requests a description of a set of instances.

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "InstanceIds": [ "string" ],
  "LayerId": "string",
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

InstanceIds

An array of instance IDs to be described. If you use this parameter, DescribeInstances returns a description of the specified instances. Otherwise, it returns a description of every instance.

Type: Array of strings

Required: No

LayerId

A layer ID. If you use this parameter, DescribeInstances returns descriptions of the instances associated with the specified layer.

Type: String

Required: No

StackId

A stack ID. If you use this parameter, DescribeInstances returns descriptions of the instances associated with the specified stack.

Type: String

Required: No

Response Syntax

```
{
  "Instances": [
    {
      "AgentVersion": "string",
      "AmiId": "string",
      "Architecture": "string",
      "Arn": "string",
      "AutoScalingType": "string",
      "AvailabilityZone": "string",
      "BlockDeviceMappings": [
        {
          "DeviceName": "string",
          "Ebs": {
            "DeleteOnTermination": boolean,
            "Iops": number,
            "SnapshotId": "string",
            "VolumeSize": number,
            "VolumeType": "string"
          },
          "NoDevice": "string",
          "VirtualName": "string"
        }
      ],
      "CreatedAt": "string",
      "EbsOptimized": boolean,
      "Ec2InstanceId": "string",
      "EcsClusterArn": "string",
      "EcsContainerInstanceArn": "string",
```

```
"ElasticIp": "string",
"Hostname": "string",
"InfrastructureClass": "string",
"InstallUpdatesOnBoot": boolean,
"InstanceId": "string",
"InstanceProfileArn": "string",
"InstanceType": "string",
"LastServiceErrorId": "string",
"LayerIds": [ "string" ],
"Os": "string",
"Platform": "string",
"PrivateDns": "string",
"PrivateIp": "string",
"PublicDns": "string",
"PublicIp": "string",
"RegisteredBy": "string",
"ReportedAgentVersion": "string",
"ReportedOs": {
  "Family": "string",
  "Name": "string",
  "Version": "string"
},
"RootDeviceType": "string",
"RootDeviceVolumeId": "string",
"SecurityGroupIds": [ "string" ],
"SshHostDsaKeyFingerprint": "string",
"SshHostRsaKeyFingerprint": "string",
"SshKeyName": "string",
"StackId": "string",
"Status": "string",
"SubnetId": "string",
"Tenancy": "string",
"VirtualizationType": "string"
}
]
}
```

Response Elements

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

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

Instances

An array of Instance objects that describe the instances.

Type: Array of [Instance](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeLayers

Requests a description of one or more layers in a specified stack.

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "LayerIds": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

LayerIds

An array of layer IDs that specify the layers to be described. If you omit this parameter, DescribeLayers returns a description of every layer in the specified stack.

Type: Array of strings

Required: No

StackId

The stack ID.

Type: String

Required: No

Response Syntax

```
{
  "Layers": [
    {
      "Arn": "string",
      "Attributes": {
        "string" : "string"
      },
      "AutoAssignElasticIps": boolean,
      "AutoAssignPublicIps": boolean,
      "CloudWatchLogsConfiguration": {
        "Enabled": boolean,
        "LogStreams": [
          {
            "BatchCount": number,
            "BatchSize": number,
            "BufferDuration": number,
            "DatetimeFormat": "string",
            "Encoding": "string",
            "File": "string",
            "FileFingerprintLines": "string",
            "InitialPosition": "string",
            "LogGroupName": "string",
            "MultiLineStartPattern": "string",
            "TimeZone": "string"
          }
        ]
      }
    },
    {
      "CreatedAt": "string",
      "CustomInstanceProfileArn": "string",
      "CustomJson": "string",
      "CustomRecipes": {
        "Configure": [ "string" ],
        "Deploy": [ "string" ],
        "Setup": [ "string" ],
        "Shutdown": [ "string" ],
        "Undeploy": [ "string" ]
      },
      "CustomSecurityGroupIds": [ "string" ],
      "DefaultRecipes": {
        "Configure": [ "string" ],
        "Deploy": [ "string" ],

```

```

    "Setup": [ "string" ],
    "Shutdown": [ "string" ],
    "Undeploy": [ "string" ]
  },
  "DefaultSecurityGroupNames": [ "string" ],
  "EnableAutoHealing": boolean,
  "InstallUpdatesOnBoot": boolean,
  "LayerId": "string",
  "LifecycleEventConfiguration": {
    "Shutdown": {
      "DelayUntilElbConnectionsDrained": boolean,
      "ExecutionTimeout": number
    }
  },
  "Name": "string",
  "Packages": [ "string" ],
  "Shortname": "string",
  "StackId": "string",
  "Type": "string",
  "UseEbsOptimizedInstances": boolean,
  "VolumeConfigurations": [
    {
      "Encrypted": boolean,
      "Iops": number,
      "MountPoint": "string",
      "NumberOfDisks": number,
      "RaidLevel": number,
      "Size": number,
      "VolumeType": "string"
    }
  ]
}

```

Response Elements

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

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

Layers

An array of `Layer` objects that describe the layers.

Type: Array of [Layer](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeLoadBasedAutoScaling

Describes load-based auto scaling configurations for specified layers.

Note

You must specify at least one of the parameters.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "LayerIds": [ "string" ]
}
```

Request Parameters

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

The request accepts the following data in JSON format.

LayerIds

An array of layer IDs.

Type: Array of strings

Required: Yes

Response Syntax

```
{
  "LoadBasedAutoScalingConfigurations": [
    {
      "DownScaling": {
        "Alarms": [ "string" ],

```



```
    "CpuThreshold": number,
    "IgnoreMetricsTime": number,
    "InstanceCount": number,
    "LoadThreshold": number,
    "MemoryThreshold": number,
    "ThresholdsWaitTime": number
  },
  "Enable": boolean,
  "LayerId": "string",
  "UpScaling": {
    "Alarms": [ "string" ],
    "CpuThreshold": number,
    "IgnoreMetricsTime": number,
    "InstanceCount": number,
    "LoadThreshold": number,
    "MemoryThreshold": number,
    "ThresholdsWaitTime": number
  }
}
]
```

Response Elements

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

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

LoadBasedAutoScalingConfigurations

An array of `LoadBasedAutoScalingConfiguration` objects that describe each layer's configuration.

Type: Array of [LoadBasedAutoScalingConfiguration](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeMyUserProfile

Describes a user's SSH information.

Required Permissions: To use this action, an IAM user must have self-management enabled or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Response Syntax

```
{
  "UserProfile": {
    "IamUserArn": "string",
    "Name": "string",
    "SshPublicKey": "string",
    "SshUsername": "string"
  }
}
```

Response Elements

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

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

UserProfile

A `UserProfile` object that describes the user's SSH information.

Type: [SelfUserProfile](#) object

Errors

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

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

DescribeOperatingSystems

Describes the operating systems that are supported by AWS OpsWorks Stacks.

Response Syntax

```
{
  "OperatingSystems": [
    {
      "ConfigurationManagers": [
        {
          "Name": "string",
          "Version": "string"
        }
      ],
      "Id": "string",
      "Name": "string",
      "ReportedName": "string",
      "ReportedVersion": "string",
      "Supported": boolean,
      "Type": "string"
    }
  ]
}
```

Response Elements

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

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

OperatingSystems

Contains information in response to a DescribeOperatingSystems request.

Type: Array of [OperatingSystem](#) objects

Errors

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

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

DescribePermissions

Describes the permissions for a specified stack.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "IamUserArn": "string",  
  "StackId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[IamUserArn](#)

The user's IAM ARN. This can also be a federated user's ARN. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No

[StackId](#)

The stack ID.

Type: String

Required: No

Response Syntax

```
{  
  "Permissions": [  
    ...  
  ]  
}
```

```
{
  "AllowSsh": boolean,
  "AllowSudo": boolean,
  "IamUserArn": "string",
  "Level": "string",
  "StackId": "string"
}
```

Response Elements

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

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

Permissions

An array of `Permission` objects that describe the stack permissions.

- If the request object contains only a stack ID, the array contains a `Permission` object with permissions for each of the stack IAM ARNs.
- If the request object contains only an IAM ARN, the array contains a `Permission` object with permissions for each of the user's stack IDs.
- If the request contains a stack ID and an IAM ARN, the array contains a single `Permission` object with permissions for the specified stack and IAM ARN.

Type: Array of [Permission](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeRaidArrays

Describe an instance's RAID arrays.

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "InstanceId": "string",
  "RaidArrayIds": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

InstanceId

The instance ID. If you use this parameter, `DescribeRaidArrays` returns descriptions of the RAID arrays associated with the specified instance.

Type: String

Required: No

RaidArrayIds

An array of RAID array IDs. If you use this parameter, `DescribeRaidArrays` returns descriptions of the specified arrays. Otherwise, it returns a description of every array.

Type: Array of strings

Required: No

StackId

The stack ID.

Type: String

Required: No

Response Syntax

```
{
  "RaidArrays": [
    {
      "AvailabilityZone": "string",
      "CreatedAt": "string",
      "Device": "string",
      "InstanceId": "string",
      "Iops": number,
      "MountPoint": "string",
      "Name": "string",
      "NumberOfDisks": number,
      "RaidArrayId": "string",
      "RaidLevel": number,
      "Size": number,
      "StackId": "string",
      "VolumeType": "string"
    }
  ]
}
```

Response Elements

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

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

RaidArrays

A `RaidArrays` object that describes the specified RAID arrays.

Type: Array of [RaidArray](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeRdsDbInstances

Describes Amazon RDS instances.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

This call accepts only one resource-identifying parameter.

Request Syntax

```
{
  "RdsDbInstanceArns": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

RdsDbInstanceArns

An array containing the ARNs of the instances to be described.

Type: Array of strings

Required: No

StackId

The ID of the stack with which the instances are registered. The operation returns descriptions of all registered Amazon RDS instances.

Type: String

Required: Yes

Response Syntax

```
{
  "RdsDbInstances": [
    {
      "Address": "string",
      "DbInstanceIdentifier": "string",
      "DbPassword": "string",
      "DbUser": "string",
      "Engine": "string",
      "MissingOnRds": boolean,
      "RdsDbInstanceArn": "string",
      "Region": "string",
      "StackId": "string"
    }
  ]
}
```

Response Elements

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

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

RdsDbInstances

An array of RdsDbInstance objects that describe the instances.

Type: Array of [RdsDbInstance](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeServiceErrors

Describes AWS OpsWorks Stacks service errors.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

This call accepts only one resource-identifying parameter.

Request Syntax

```
{
  "InstanceId": "string",
  "ServiceErrorIds": [ "string" ],
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

InstanceId

The instance ID. If you use this parameter, `DescribeServiceErrors` returns descriptions of the errors associated with the specified instance.

Type: String

Required: No

ServiceErrorIds

An array of service error IDs. If you use this parameter, `DescribeServiceErrors` returns descriptions of the specified errors. Otherwise, it returns a description of every error.

Type: Array of strings

Required: No

StackId

The stack ID. If you use this parameter, `DescribeServiceErrors` returns descriptions of the errors associated with the specified stack.

Type: String

Required: No

Response Syntax

```
{
  "ServiceErrors": [
    {
      "CreatedAt": "string",
      "InstanceId": "string",
      "Message": "string",
      "ServiceErrorId": "string",
      "StackId": "string",
      "Type": "string"
    }
  ]
}
```

Response Elements

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

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

ServiceErrors

An array of `ServiceError` objects that describe the specified service errors.

Type: Array of [ServiceError](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeStackProvisioningParameters

Requests a description of a stack's provisioning parameters.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

StackId

The stack ID.

Type: String

Required: Yes

Response Syntax

```
{
  "AgentInstallerUrl": "string",
  "Parameters": {
    "string" : "string"
  }
}
```

Response Elements

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

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

AgentInstallerUrl

The AWS OpsWorks Stacks agent installer's URL.

Type: String

Parameters

An embedded object that contains the provisioning parameters.

Type: String to string map

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

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

DescribeStacks

Requests a description of one or more stacks.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "StackIds": [ "string" ]  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

StackIds

An array of stack IDs that specify the stacks to be described. If you omit this parameter, and have permissions to get information about all stacks, DescribeStacks returns a description of every stack. If the IAM policy that is attached to an IAM user limits the DescribeStacks action to specific stack ARNs, this parameter is required, and the user must specify a stack ARN that is allowed by the policy. Otherwise, DescribeStacks returns an AccessDenied error.

Type: Array of strings

Required: No

Response Syntax

```
{  
  "Stacks": [  
    {  
      "AgentVersion": "string",  
      "Arn": "string",  
      "Attributes": {
```

```

    "string" : "string"
  },
  "ChefConfiguration": {
    "BerkshelfVersion": "string",
    "ManageBerkshelf": boolean
  },
  "ConfigurationManager": {
    "Name": "string",
    "Version": "string"
  },
  "CreatedAt": "string",
  "CustomCookbooksSource": {
    "Password": "string",
    "Revision": "string",
    "SshKey": "string",
    "Type": "string",
    "Url": "string",
    "Username": "string"
  },
  "CustomJson": "string",
  "DefaultAvailabilityZone": "string",
  "DefaultInstanceProfileArn": "string",
  "DefaultOs": "string",
  "DefaultRootDeviceType": "string",
  "DefaultSshKeyName": "string",
  "DefaultSubnetId": "string",
  "HostnameTheme": "string",
  "Name": "string",
  "Region": "string",
  "ServiceRoleArn": "string",
  "StackId": "string",
  "UseCustomCookbooks": boolean,
  "UseOpsworksSecurityGroups": boolean,
  "VpcId": "string"
}
]
}

```

Response Elements

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

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

Stacks

An array of Stack objects that describe the stacks.

Type: Array of [Stack](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeStackSummary

Describes the number of layers and apps in a specified stack, and the number of instances in each state, such as `running_setup` or `online`.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[StackId](#)

The stack ID.

Type: String

Required: Yes

Response Syntax

```
{
  "StackSummary": {
    "AppsCount": number,
    "Arn": "string",
    "InstancesCount": {
      "Assigning": number,
      "Booting": number,
      "ConnectionLost": number,
      "Deregistering": number,

```

```
"Online": number,
"Pending": number,
"Rebooting": number,
"Registered": number,
"Registering": number,
"Requested": number,
"RunningSetup": number,
"SetupFailed": number,
"ShuttingDown": number,
"StartFailed": number,
"StopFailed": number,
"Stopped": number,
"Stopping": number,
"Terminated": number,
"Terminating": number,
"Unassigning": number
},
"LayersCount": number,
"Name": "string",
"StackId": "string"
}
}
```

Response Elements

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

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

StackSummary

A StackSummary object that contains the results.

Type: [StackSummary](#) object

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeTimeBasedAutoScaling

Describes time-based auto scaling configurations for specified instances.

Note

You must specify at least one of the parameters.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "InstanceIds": [ "string" ]
}
```

Request Parameters

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

The request accepts the following data in JSON format.

InstanceIds

An array of instance IDs.

Type: Array of strings

Required: Yes

Response Syntax

```
{
  "TimeBasedAutoScalingConfigurations": [
    {
      "AutoScalingSchedule": {
        "Friday": {
```

```
        "string" : "string"
    },
    "Monday": {
        "string" : "string"
    },
    "Saturday": {
        "string" : "string"
    },
    "Sunday": {
        "string" : "string"
    },
    "Thursday": {
        "string" : "string"
    },
    "Tuesday": {
        "string" : "string"
    },
    "Wednesday": {
        "string" : "string"
    }
},
"InstanceId": "string"
}
]
```

Response Elements

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

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

TimeBasedAutoScalingConfigurations

An array of `TimeBasedAutoScalingConfiguration` objects that describe the configuration for the specified instances.

Type: Array of [TimeBasedAutoScalingConfiguration](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

DescribeUserProfiles

Describe specified users.

Required Permissions: To use this action, an IAM user must have an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "IamUserArns": [ "string" ]  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[IamUserArns](#)

An array of IAM or federated user ARNs that identify the users to be described.

Type: Array of strings

Required: No

Response Syntax

```
{  
  "UserProfiles": [  
    {  
      "AllowSelfManagement": boolean,  
      "IamUserArn": "string",  
      "Name": "string",  
      "SshPublicKey": "string",  
      "SshUsername": "string"  
    }  
  ]  
}
```

Response Elements

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

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

UserProfiles

A `Users` object that describes the specified users.

Type: Array of [UserProfile](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

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

DescribeVolumes

Describes an instance's Amazon EBS volumes.

Note

This call accepts only one resource-identifying parameter.

Required Permissions: To use this action, an IAM user must have a Show, Deploy, or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "InstanceId": "string",
  "RaidArrayId": "string",
  "StackId": "string",
  "VolumeIds": [ "string" ]
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[InstanceId](#)

The instance ID. If you use this parameter, DescribeVolumes returns descriptions of the volumes associated with the specified instance.

Type: String

Required: No

[RaidArrayId](#)

The RAID array ID. If you use this parameter, DescribeVolumes returns descriptions of the volumes associated with the specified RAID array.

Type: String

Required: No

StackId

A stack ID. The action describes the stack's registered Amazon EBS volumes.

Type: String

Required: No

Volumes

An array of volume IDs. If you use this parameter, `DescribeVolumes` returns descriptions of the specified volumes. Otherwise, it returns a description of every volume.

Type: Array of strings

Required: No

Response Syntax

```
{
  "Volumes": [
    {
      "AvailabilityZone": "string",
      "Device": "string",
      "Ec2VolumeId": "string",
      "Encrypted": boolean,
      "InstanceId": "string",
      "Iops": number,
      "MountPoint": "string",
      "Name": "string",
      "RaidArrayId": "string",
      "Region": "string",
      "Size": number,
      "Status": "string",
      "VolumeId": "string",
      "VolumeType": "string"
    }
  ]
}
```

Response Elements

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

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

Volumes

An array of volume IDs.

Type: Array of [Volume](#) objects

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

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

DetachElasticLoadBalancer

Detaches a specified Elastic Load Balancing instance from its layer.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "ElasticLoadBalancerName": "string",
  "LayerId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[ElasticLoadBalancerName](#)

The Elastic Load Balancing instance's name.

Type: String

Required: Yes

[LayerId](#)

The ID of the layer that the Elastic Load Balancing instance is attached to.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

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

DisassociateElasticIp

Disassociates an Elastic IP address from its instance. The address remains registered with the stack. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "ElasticIp": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[ElasticIp](#)

The Elastic IP address.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

GetHostnameSuggestion

Gets a generated host name for the specified layer, based on the current host name theme.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "LayerId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

LayerId

The layer ID.

Type: String

Required: Yes

Response Syntax

```
{
  "Hostname": "string",
  "LayerId": "string"
}
```

Response Elements

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

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

Hostname

The generated host name.

Type: String

LayerId

The layer ID.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

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

GrantAccess

Note

This action can be used only with Windows stacks.

Grants RDP access to a Windows instance for a specified time period.

Request Syntax

```
{  
  "InstanceId": "string",  
  "ValidForInMinutes": number  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

InstanceId

The instance's AWS OpsWorks Stacks ID.

Type: String

Required: Yes

ValidForInMinutes

The length of time (in minutes) that the grant is valid. When the grant expires at the end of this period, the user will no longer be able to use the credentials to log in. If the user is logged in at the time, they are logged out.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 1440.

Required: No

Response Syntax

```
{
  "TemporaryCredential": {
    "InstanceId": "string",
    "Password": "string",
    "Username": "string",
    "ValidForInMinutes": number
  }
}
```

Response Elements

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

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

TemporaryCredential

A `TemporaryCredential` object that contains the data needed to log in to the instance by RDP clients, such as the Microsoft Remote Desktop Connection.

Type: [TemporaryCredential](#) object

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

ListTags

Returns a list of tags that are applied to the specified stack or layer.

Request Syntax

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

Request Parameters

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

The request accepts the following data in JSON format.

MaxResults

Do not use. A validation exception occurs if you add a `MaxResults` parameter to a `ListTagsRequest` call.

Type: Integer

Required: No

NextToken

Do not use. A validation exception occurs if you add a `NextToken` parameter to a `ListTagsRequest` call.

Type: String

Required: No

ResourceArn

The stack or layer's Amazon Resource Number (ARN).

Type: String

Required: Yes

Response Syntax

```
{
  "NextToken": "string",
  "Tags": {
    "string" : "string"
  }
}
```

Response Elements

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

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

NextToken

If a paginated request does not return all of the remaining results, this parameter is set to a token that you can assign to the request object's `NextToken` parameter to get the next set of results. If the previous paginated request returned all of the remaining results, this parameter is set to `null`.

Type: String

Tags

A set of key-value pairs that contain tag keys and tag values that are attached to a stack or layer.

Type: String to string map

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

RebootInstance

Reboots a specified instance. For more information, see [Starting, Stopping, and Rebooting Instances](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "InstanceId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[InstanceId](#)

The instance ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

RegisterEcsCluster

Registers a specified Amazon ECS cluster with a stack. You can register only one cluster with a stack. A cluster can be registered with only one stack. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "EcsClusterArn": "string",
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[EcsClusterArn](#)

The cluster's ARN.

Type: String

Required: Yes

[StackId](#)

The stack ID.

Type: String

Required: Yes

Response Syntax

```
{
```

```
"EcsClusterArn": "string"  
}
```

Response Elements

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

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

EcsClusterArn

The cluster's ARN.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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 v2](#)

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

RegisterElasticIp

Registers an Elastic IP address with a specified stack. An address can be registered with only one stack at a time. If the address is already registered, you must first deregister it by calling [DeregisterElasticIp](#). For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "ElasticIp": "string",  
  "StackId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[ElasticIp](#)

The Elastic IP address.

Type: String

Required: Yes

[StackId](#)

The stack ID.

Type: String

Required: Yes

Response Syntax

```
{
```



```
"ElasticIp": "string"  
}
```

Response Elements

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

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

ElasticIp

The Elastic IP address.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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 v2](#)

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

RegisterInstance

Registers instances that were created outside of AWS OpsWorks Stacks with a specified stack.

Note

We do not recommend using this action to register instances. The complete registration operation includes two tasks: installing the AWS OpsWorks Stacks agent on the instance, and registering the instance with the stack. RegisterInstance handles only the second step. You should instead use the AWS CLI `register` command, which performs the entire registration operation. For more information, see [Registering an Instance with an AWS OpsWorks Stacks Stack](#).

Registered instances have the same requirements as instances that are created by using the [CreateInstance](#) API. For example, registered instances must be running a supported Linux-based operating system, and they must have a supported instance type. For more information about requirements for instances that you want to register, see [Preparing the Instance](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "Hostname": "string",
  "InstanceIdentity": {
    "Document": "string",
    "Signature": "string"
  },
  "PrivateIp": "string",
  "PublicIp": "string",
  "RsaPublicKey": "string",
  "RsaPublicKeyFingerprint": "string",
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[Hostname](#)

The instance's host name. The following are character limits for instance host names.

- Linux-based instances: 63 characters
- Windows-based instances: 15 characters

Type: String

Required: No

[Instanceldentity](#)

An Instanceldentity object that contains the instance's identity.

Type: [Instanceldentity](#) object

Required: No

[PrivateIp](#)

The instance's private IP address.

Type: String

Required: No

[PublicIp](#)

The instance's public IP address.

Type: String

Required: No

[RsaPublicKey](#)

The instances public RSA key. This key is used to encrypt communication between the instance and the service.

Type: String

Required: No

RsaPublicKeyFingerprint

The instances public RSA key fingerprint.

Type: String

Required: No

StackId

The ID of the stack that the instance is to be registered with.

Type: String

Required: Yes

Response Syntax

```
{
  "InstanceId": "string"
}
```

Response Elements

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

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

InstanceId

The registered instance's AWS OpsWorks Stacks ID.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

RegisterRdsDbInstance

Registers an Amazon RDS instance with a stack.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "DbPassword": "string",  
  "DbUser": "string",  
  "RdsDbInstanceArn": "string",  
  "StackId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

DbPassword

The database password.

Type: String

Required: Yes

DbUser

The database's master user name.

Type: String

Required: Yes

RdsDbInstanceArn

The Amazon RDS instance's ARN.

Type: String

Required: Yes

StackId

The stack ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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 v2](#)

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

RegisterVolume

Registers an Amazon EBS volume with a specified stack. A volume can be registered with only one stack at a time. If the volume is already registered, you must first deregister it by calling [DeregisterVolume](#). For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "Ec2VolumeId": "string",  
  "StackId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[Ec2VolumeId](#)

The Amazon EBS volume ID.

Type: String

Required: No

[StackId](#)

The stack ID.

Type: String

Required: Yes

Response Syntax

```
{
```

```
"VolumeId": "string"  
}
```

Response Elements

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

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

VolumeId

The volume ID.

Type: String

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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 v2](#)

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

SetLoadBasedAutoScaling

Specify the load-based auto scaling configuration for a specified layer. For more information, see [Managing Load with Time-based and Load-based Instances](#).

Note

To use load-based auto scaling, you must create a set of load-based auto scaling instances. Load-based auto scaling operates only on the instances from that set, so you must ensure that you have created enough instances to handle the maximum anticipated load.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "DownScaling": {
    "Alarms": [ "string" ],
    "CpuThreshold": number,
    "IgnoreMetricsTime": number,
    "InstanceCount": number,
    "LoadThreshold": number,
    "MemoryThreshold": number,
    "ThresholdsWaitTime": number
  },
  "Enable": boolean,
  "LayerId": "string",
  "UpScaling": {
    "Alarms": [ "string" ],
    "CpuThreshold": number,
    "IgnoreMetricsTime": number,
    "InstanceCount": number,
    "LoadThreshold": number,
    "MemoryThreshold": number,
    "ThresholdsWaitTime": number
  }
}
```

Request Parameters

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

The request accepts the following data in JSON format.

DownScaling

An `AutoScalingThresholds` object with the downscaling threshold configuration. If the load falls below these thresholds for a specified amount of time, AWS OpsWorks Stacks stops a specified number of instances.

Type: [AutoScalingThresholds](#) object

Required: No

Enable

Enables load-based auto scaling for the layer.

Type: Boolean

Required: No

LayerId

The layer ID.

Type: String

Required: Yes

UpScaling

An `AutoScalingThresholds` object with the upscaling threshold configuration. If the load exceeds these thresholds for a specified amount of time, AWS OpsWorks Stacks starts a specified number of instances.

Type: [AutoScalingThresholds](#) object

Required: No

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

SetPermission

Specifies a user's permissions. For more information, see [Security and Permissions](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AllowSsh": boolean,
  "AllowSudo": boolean,
  "IamUserArn": "string",
  "Level": "string",
  "StackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[AllowSsh](#)

The user is allowed to use SSH to communicate with the instance.

Type: Boolean

Required: No

[AllowSudo](#)

The user is allowed to use **sudo** to elevate privileges.

Type: Boolean

Required: No

[IamUserArn](#)

The user's IAM ARN. This can also be a federated user's ARN.

Type: String

Required: Yes

Level

The user's permission level, which must be set to one of the following strings. You cannot set your own permissions level.

- deny
- show
- deploy
- manage
- iam_only

For more information about the permissions associated with these levels, see [Managing User Permissions](#).

Type: String

Required: No

StackId

The stack ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

SetTimeBasedAutoScaling

Specify the time-based auto scaling configuration for a specified instance. For more information, see [Managing Load with Time-based and Load-based Instances](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AutoScalingSchedule": {
    "Friday": {
      "string" : "string"
    },
    "Monday": {
      "string" : "string"
    },
    "Saturday": {
      "string" : "string"
    },
    "Sunday": {
      "string" : "string"
    },
    "Thursday": {
      "string" : "string"
    },
    "Tuesday": {
      "string" : "string"
    },
    "Wednesday": {
      "string" : "string"
    }
  },
  "InstanceId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AutoScalingSchedule

An `AutoScalingSchedule` with the instance schedule.

Type: [WeeklyAutoScalingSchedule](#) object

Required: No

InstanceId

The instance ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

StartInstance

Starts a specified instance. For more information, see [Starting, Stopping, and Rebooting Instances](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "InstanceId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[InstanceId](#)

The instance ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

StartStack

Starts a stack's instances.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "StackId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

StackId

The stack ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

StopInstance

Stops a specified instance. When you stop a standard instance, the data disappears and must be reinstalled when you restart the instance. You can stop an Amazon EBS-backed instance without losing data. For more information, see [Starting, Stopping, and Rebooting Instances](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "Force": boolean,
  "InstanceId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

Force

Specifies whether to force an instance to stop. If the instance's root device type is ebs, or EBS-backed, adding the `Force` parameter to the `StopInstances` API call disassociates the AWS OpsWorks Stacks instance from EC2, and forces deletion of *only* the AWS OpsWorks Stacks instance. You must also delete the formerly-associated instance in EC2 after troubleshooting and replacing the AWS OpsWorks Stacks instance with a new one.

Type: Boolean

Required: No

InstanceId

The instance ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

StopStack

Stops a specified stack.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "StackId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

StackId

The stack ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

TagResource

Apply cost-allocation tags to a specified stack or layer in AWS OpsWorks Stacks. For more information about how tagging works, see [Tags](#) in the AWS OpsWorks User Guide.

Request Syntax

```
{
  "ResourceArn": "string",
  "Tags": {
    "string" : "string"
  }
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[ResourceArn](#)

The stack or layer's Amazon Resource Number (ARN).

Type: String

Required: Yes

[Tags](#)

A map that contains tag keys and tag values that are attached to a stack or layer.

- The key cannot be empty.
- The key can be a maximum of 127 characters, and can contain only Unicode letters, numbers, or separators, or the following special characters: + - = . _ : /
- The value can be a maximum 255 characters, and contain only Unicode letters, numbers, or separators, or the following special characters: + - = . _ : /
- Leading and trailing white spaces are trimmed from both the key and value.
- A maximum of 40 tags is allowed for any resource.

Type: String to string map

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UnassignInstance

Unassigns a registered instance from all layers that are using the instance. The instance remains in the stack as an unassigned instance, and can be assigned to another layer as needed. You cannot use this action with instances that were created with AWS OpsWorks Stacks.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "InstanceId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[InstanceId](#)

The instance ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UnassignVolume

Unassigns an assigned Amazon EBS volume. The volume remains registered with the stack. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "VolumeId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[VolumeId](#)

The volume ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UntagResource

Removes tags from a specified stack or layer.

Request Syntax

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

Request Parameters

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

The request accepts the following data in JSON format.

[ResourceArn](#)

The stack or layer's Amazon Resource Number (ARN).

Type: String

Required: Yes

[TagKeys](#)

A list of the keys of tags to be removed from a stack or layer.

Type: Array of strings

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UpdateApp

Updates a specified app.

Required Permissions: To use this action, an IAM user must have a Deploy or Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AppId": "string",
  "AppSource": {
    "Password": "string",
    "Revision": "string",
    "SshKey": "string",
    "Type": "string",
    "Url": "string",
    "Username": "string"
  },
  "Attributes": {
    "string" : "string"
  },
  "DataSources": [
    {
      "Arn": "string",
      "DatabaseName": "string",
      "Type": "string"
    }
  ],
  "Description": "string",
  "Domains": [ "string" ],
  "EnableSsl": boolean,
  "Environment": [
    {
      "Key": "string",
      "Secure": boolean,
      "Value": "string"
    }
  ],
  "Name": "string",
  "SslConfiguration": {
    "Certificate": "string",
```

```
  "Chain": "string",
  "PrivateKey": "string"
},
"Type": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AppId

The app ID.

Type: String

Required: Yes

AppSource

A Source object that specifies the app repository.

Type: [Source](#) object

Required: No

Attributes

One or more user-defined key/value pairs to be added to the stack attributes.

Type: String to string map

Valid Keys: DocumentRoot | RailsEnv | AutoBundleOnDeploy |
AwsFlowRubySettings

Required: No

DataSources

The app's data sources.

Type: Array of [DataSource](#) objects

Required: No

Description

A description of the app.

Type: String

Required: No

Domains

The app's virtual host settings, with multiple domains separated by commas. For example:
'www.example.com, example.com'

Type: Array of strings

Required: No

EnableSsl

Whether SSL is enabled for the app.

Type: Boolean

Required: No

Environment

An array of `EnvironmentVariable` objects that specify environment variables to be associated with the app. After you deploy the app, these variables are defined on the associated app server instances. For more information, see [Environment Variables](#).

There is no specific limit on the number of environment variables. However, the size of the associated data structure - which includes the variables' names, values, and protected flag values - cannot exceed 20 KB. This limit should accommodate most if not all use cases. Exceeding it will cause an exception with the message, "Environment: is too large (maximum is 20 KB)."

Note

If you have specified one or more environment variables, you cannot modify the stack's Chef version.

Type: Array of [EnvironmentVariable](#) objects

Required: No

Name

The app name.

Type: String

Required: No

SslConfiguration

An SslConfiguration object with the SSL configuration.

Type: [SslConfiguration](#) object

Required: No

Type

The app type.

Type: String

Valid Values: `aws-flow-ruby` | `java` | `rails` | `php` | `nodejs` | `static` | `other`

Required: No

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UpdateElasticIp

Updates a registered Elastic IP address's name. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "ElasticIp": "string",  
  "Name": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[ElasticIp](#)

The IP address for which you want to update the name.

Type: String

Required: Yes

[Name](#)

The new name, which can be a maximum of 32 characters.

Type: String

Required: No

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UpdateInstance

Updates a specified instance.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AgentVersion": "string",
  "AmiId": "string",
  "Architecture": "string",
  "AutoScalingType": "string",
  "EbsOptimized": boolean,
  "Hostname": "string",
  "InstallUpdatesOnBoot": boolean,
  "InstanceId": "string",
  "InstanceType": "string",
  "LayerIds": [ "string" ],
  "Os": "string",
  "SshKeyName": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[AgentVersion](#)

The default AWS OpsWorks Stacks agent version. You have the following options:

- INHERIT - Use the stack's default agent version setting.
- *version_number* - Use the specified agent version. This value overrides the stack's default setting. To update the agent version, you must edit the instance configuration and specify a new version. AWS OpsWorks Stacks installs that version on the instance.

The default setting is INHERIT. To specify an agent version, you must use the complete version number, not the abbreviated number shown on the console. For a list of available agent version numbers, call [DescribeAgentVersions](#).

AgentVersion cannot be set to Chef 12.2.

Type: String

Required: No

[Amild](#)

The ID of the AMI that was used to create the instance. The value of this parameter must be the same AMI ID that the instance is already using. You cannot apply a new AMI to an instance by running UpdateInstance. UpdateInstance does not work on instances that are using custom AMIs.

Type: String

Required: No

[Architecture](#)

The instance architecture. Instance types do not necessarily support both architectures. For a list of the architectures that are supported by the different instance types, see [Instance Families and Types](#).

Type: String

Valid Values: x86_64 | i386

Required: No

[AutoScalingType](#)

For load-based or time-based instances, the type. Windows stacks can use only time-based instances.

Type: String

Valid Values: load | timer

Required: No

EbsOptimized

This property cannot be updated.

Type: Boolean

Required: No

Hostname

The instance host name. The following are character limits for instance host names.

- Linux-based instances: 63 characters
- Windows-based instances: 15 characters

Type: String

Required: No

InstallUpdatesOnBoot

Whether to install operating system and package updates when the instance boots. The default value is `true`. To control when updates are installed, set this value to `false`. You must then update your instances manually by using [CreateDeployment](#) to run the `update_dependencies` stack command or by manually running `yum` (Amazon Linux) or `apt-get` (Ubuntu) on the instances.

Note

We strongly recommend using the default value of `true`, to ensure that your instances have the latest security updates.

Type: Boolean

Required: No

InstanceId

The instance ID.

Type: String

Required: Yes

InstanceType

The instance type, such as `t2.micro`. For a list of supported instance types, open the stack in the console, choose **Instances**, and choose **+ Instance**. The **Size** list contains the currently supported types. For more information, see [Instance Families and Types](#). The parameter values that you use to specify the various types are in the **API Name** column of the **Available Instance Types** table.

Type: String

Required: No

LayerIds

The instance's layer IDs.

Type: Array of strings

Required: No

Os

The instance's operating system, which must be set to one of the following. You cannot update an instance that is using a custom AMI.

- A supported Linux operating system: An Amazon Linux version, such as Amazon Linux 2, Amazon Linux 2018.03, Amazon Linux 2017.09, Amazon Linux 2017.03, Amazon Linux 2016.09, Amazon Linux 2016.03, Amazon Linux 2015.09, or Amazon Linux 2015.03.
- A supported Ubuntu operating system, such as Ubuntu 18.04 LTS, Ubuntu 16.04 LTS, Ubuntu 14.04 LTS, or Ubuntu 12.04 LTS.
- CentOS Linux 7
- Red Hat Enterprise Linux 7
- A supported Windows operating system, such as Microsoft Windows Server 2012 R2 Base, Microsoft Windows Server 2012 R2 with SQL Server Express, Microsoft Windows Server 2012 R2 with SQL Server Standard, or Microsoft Windows Server 2012 R2 with SQL Server Web.

Not all operating systems are supported with all versions of Chef. For more information about supported operating systems, see [AWS OpsWorks Stacks Operating Systems](#).

The default option is the current Amazon Linux version. If you set this parameter to Custom, you must use the `Amild` parameter to specify the custom AMI that you want to use. For more information about how to use custom AMIs with AWS OpsWorks, see [Using Custom AMIs](#).

Note

You can specify a different Linux operating system for the updated stack, but you cannot change from Linux to Windows or Windows to Linux.

Type: String

Required: No

SshKeyName

The instance's Amazon EC2 key name.

Type: String

Required: No

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UpdateLayer

Updates a specified layer.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "Attributes": {
    "string" : "string"
  },
  "AutoAssignElasticIps": boolean,
  "AutoAssignPublicIps": boolean,
  "CloudWatchLogsConfiguration": {
    "Enabled": boolean,
    "LogStreams": [
      {
        "BatchCount": number,
        "BatchSize": number,
        "BufferDuration": number,
        "DatetimeFormat": "string",
        "Encoding": "string",
        "File": "string",
        "FileFingerprintLines": "string",
        "InitialPosition": "string",
        "LogGroupName": "string",
        "MultiLineStartPattern": "string",
        "TimeZone": "string"
      }
    ]
  },
  "CustomInstanceProfileArn": "string",
  "CustomJson": "string",
  "CustomRecipes": {
    "Configure": [ "string" ],
    "Deploy": [ "string" ],
    "Setup": [ "string" ],
    "Shutdown": [ "string" ],
    "Undeploy": [ "string" ]
  },
}
```

```

"CustomSecurityGroupIds": [ "string" ],
"EnableAutoHealing": boolean,
"InstallUpdatesOnBoot": boolean,
"LayerId": "string",
"LifecycleEventConfiguration": {
  "Shutdown": {
    "DelayUntilElbConnectionsDrained": boolean,
    "ExecutionTimeout": number
  }
},
"Name": "string",
"Packages": [ "string" ],
"Shortname": "string",
"UseEbsOptimizedInstances": boolean,
"VolumeConfigurations": [
  {
    "Encrypted": boolean,
    "Iops": number,
    "MountPoint": "string",
    "NumberOfDisks": number,
    "RaidLevel": number,
    "Size": number,
    "VolumeType": "string"
  }
]
}

```

Request Parameters

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

The request accepts the following data in JSON format.

Attributes

One or more user-defined key/value pairs to be added to the stack attributes.

Type: String to string map

Valid Keys: EcsClusterArn | EnableHaproxyStats | HaproxyStatsUrl |
HaproxyStatsUser | HaproxyStatsPassword | HaproxyHealthCheckUrl
| HaproxyHealthCheckMethod | MysqlRootPassword |
MysqlRootPasswordUbiquitous | GangliaUrl | GangliaUser | GangliaPassword

| MemcachedMemory | NodejsVersion | RubyVersion | RubygemsVersion |
ManageBundler | BundlerVersion | RailsStack | PassengerVersion | Jvm |
JvmVersion | JvmOptions | JavaAppServer | JavaAppServerVersion

Required: No

AutoAssignElasticIps

Whether to automatically assign an [Elastic IP address](#) to the layer's instances. For more information, see [How to Edit a Layer](#).

Type: Boolean

Required: No

AutoAssignPublicIps

For stacks that are running in a VPC, whether to automatically assign a public IP address to the layer's instances. For more information, see [How to Edit a Layer](#).

Type: Boolean

Required: No

CloudWatchLogsConfiguration

Specifies CloudWatch Logs configuration options for the layer. For more information, see [CloudWatchLogsLogStream](#).

Type: [CloudWatchLogsConfiguration](#) object

Required: No

CustomInstanceProfileArn

The ARN of an IAM profile to be used for all of the layer's EC2 instances. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No

CustomJson

A JSON-formatted string containing custom stack configuration and deployment attributes to be installed on the layer's instances. For more information, see [Using Custom JSON](#).

Type: String

Required: No

CustomRecipes

A `LayerCustomRecipes` object that specifies the layer's custom recipes.

Type: [Recipes](#) object

Required: No

CustomSecurityGroupIds

An array containing the layer's custom security group IDs.

Type: Array of strings

Required: No

EnableAutoHealing

Whether to disable auto healing for the layer.

Type: Boolean

Required: No

InstallUpdatesOnBoot

Whether to install operating system and package updates when the instance boots. The default value is `true`. To control when updates are installed, set this value to `false`. You must then update your instances manually by using [CreateDeployment](#) to run the `update_dependencies` stack command or manually running `yum` (Amazon Linux) or `apt-get` (Ubuntu) on the instances.

Note

We strongly recommend using the default value of `true`, to ensure that your instances have the latest security updates.

Type: Boolean

Required: No

LayerId

The layer ID.

Type: String

Required: Yes

LifecycleEventConfiguration

Type: [LifecycleEventConfiguration](#) object

Required: No

Name

The layer name, which is used by the console. Layer names can be a maximum of 32 characters.

Type: String

Required: No

Packages

An array of Package objects that describe the layer's packages.

Type: Array of strings

Required: No

Shortname

For custom layers only, use this parameter to specify the layer's short name, which is used internally by AWS OpsWorks Stacks and by Chef. The short name is also used as the name for the directory where your app files are installed. It can have a maximum of 32 characters and must be in the following format: `/\A[a-z0-9\-_\.\.]+\Z/`.

Built-in layer short names are defined by AWS OpsWorks Stacks. For more information, see the [Layer reference](#) in the AWS OpsWorks User Guide.

Type: String

Required: No

UseEbsOptimizedInstances

Whether to use Amazon EBS-optimized instances.

Type: Boolean

Required: No

VolumeConfigurations

A `VolumeConfigurations` object that describes the layer's Amazon EBS volumes.

Type: Array of [VolumeConfiguration](#) objects

Required: No

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UpdateMyUserProfile

Updates a user's SSH public key.

Required Permissions: To use this action, an IAM user must have self-management enabled or an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "SshPublicKey": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

SshPublicKey

The user's SSH public key.

Type: String

Required: No

Response Elements

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

Errors

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

ValidationException

Indicates that a request was not valid.

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

UpdateRdsDbInstance

Updates an Amazon RDS instance.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "DbPassword": "string",  
  "DbUser": "string",  
  "RdsDbInstanceArn": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

DbPassword

The database password.

Type: String

Required: No

DbUser

The master user name.

Type: String

Required: No

RdsDbInstanceArn

The Amazon RDS instance's ARN.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UpdateStack

Updates a specified stack.

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AgentVersion": "string",
  "Attributes": {
    "string" : "string"
  },
  "ChefConfiguration": {
    "BerkshelfVersion": "string",
    "ManageBerkshelf": boolean
  },
  "ConfigurationManager": {
    "Name": "string",
    "Version": "string"
  },
  "CustomCookbooksSource": {
    "Password": "string",
    "Revision": "string",
    "SshKey": "string",
    "Type": "string",
    "Url": "string",
    "Username": "string"
  },
  "CustomJson": "string",
  "DefaultAvailabilityZone": "string",
  "DefaultInstanceProfileArn": "string",
  "DefaultOs": "string",
  "DefaultRootDeviceType": "string",
  "DefaultSshKeyName": "string",
  "DefaultSubnetId": "string",
  "HostnameTheme": "string",
  "Name": "string",
  "ServiceRoleArn": "string",
  "StackId": "string",
```

```
"UseCustomCookbooks": boolean,  
"UseOpsworksSecurityGroups": boolean  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[AgentVersion](#)

The default AWS OpsWorks Stacks agent version. You have the following options:

- Auto-update - Set this parameter to LATEST. AWS OpsWorks Stacks automatically installs new agent versions on the stack's instances as soon as they are available.
- Fixed version - Set this parameter to your preferred agent version. To update the agent version, you must edit the stack configuration and specify a new version. AWS OpsWorks Stacks installs that version on the stack's instances.

The default setting is LATEST. To specify an agent version, you must use the complete version number, not the abbreviated number shown on the console. For a list of available agent version numbers, call [DescribeAgentVersions](#). AgentVersion cannot be set to Chef 12.2.

Note

You can also specify an agent version when you create or update an instance, which overrides the stack's default setting.

Type: String

Required: No

[Attributes](#)

One or more user-defined key-value pairs to be added to the stack attributes.

Type: String to string map

Valid Keys: CoLoR

Required: No

ChefConfiguration

A `ChefConfiguration` object that specifies whether to enable Berkshelf and the Berkshelf version on Chef 11.10 stacks. For more information, see [Create a New Stack](#).

Type: [ChefConfiguration](#) object

Required: No

ConfigurationManager

The configuration manager. When you update a stack, we recommend that you use the configuration manager to specify the Chef version: 12, 11.10, or 11.4 for Linux stacks, or 12.2 for Windows stacks. The default value for Linux stacks is currently 12.

Type: [StackConfigurationManager](#) object

Required: No

CustomCookbooksSource

Contains the information required to retrieve an app or cookbook from a repository. For more information, see [Adding Apps](#) or [Cookbooks and Recipes](#).

Type: [Source](#) object

Required: No

CustomJson

A string that contains user-defined, custom JSON. It can be used to override the corresponding default stack configuration JSON values or to pass data to recipes. The string should be in the following format:

```
"{\"key1\": \"value1\", \"key2\": \"value2\", ...}"
```

For more information about custom JSON, see [Use Custom JSON to Modify the Stack Configuration Attributes](#).

Type: String

Required: No

DefaultAvailabilityZone

The stack's default Availability Zone, which must be in the stack's region. For more information, see [Regions and Endpoints](#). If you also specify a value for `DefaultSubnetId`, the subnet must be in the same zone. For more information, see [CreateStack](#).

Type: String

Required: No

DefaultInstanceProfileArn

The ARN of an IAM profile that is the default profile for all of the stack's EC2 instances. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No

DefaultOs

The stack's operating system, which must be set to one of the following:

- A supported Linux operating system: An Amazon Linux version, such as Amazon Linux 2, Amazon Linux 2018.03, Amazon Linux 2017.09, Amazon Linux 2017.03, Amazon Linux 2016.09, Amazon Linux 2016.03, Amazon Linux 2015.09, or Amazon Linux 2015.03.
- A supported Ubuntu operating system, such as Ubuntu 18.04 LTS, Ubuntu 16.04 LTS, Ubuntu 14.04 LTS, or Ubuntu 12.04 LTS.
- CentOS Linux 7
- Red Hat Enterprise Linux 7
- A supported Windows operating system, such as Microsoft Windows Server 2012 R2 Base, Microsoft Windows Server 2012 R2 with SQL Server Express, Microsoft Windows Server 2012 R2 with SQL Server Standard, or Microsoft Windows Server 2012 R2 with SQL Server Web.
- A custom AMI: Custom. You specify the custom AMI you want to use when you create instances. For more information about how to use custom AMIs with AWS OpsWorks, see [Using Custom AMIs](#).

The default option is the stack's current operating system. Not all operating systems are supported with all versions of Chef. For more information about supported operating systems, see [AWS OpsWorks Stacks Operating Systems](#).

Type: String

Required: No

DefaultRootDeviceType

The default root device type. This value is used by default for all instances in the stack, but you can override it when you create an instance. For more information, see [Storage for the Root Device](#).

Type: String

Valid Values: ebs | instance-store

Required: No

DefaultSshKeyName

A default Amazon EC2 key-pair name. The default value is none. If you specify a key-pair name, AWS OpsWorks Stacks installs the public key on the instance and you can use the private key with an SSH client to log in to the instance. For more information, see [Using SSH to Communicate with an Instance](#) and [Managing SSH Access](#). You can override this setting by specifying a different key pair, or no key pair, when you [create an instance](#).

Type: String

Required: No

DefaultSubnetId

The stack's default VPC subnet ID. This parameter is required if you specify a value for the VpcId parameter. All instances are launched into this subnet unless you specify otherwise when you create the instance. If you also specify a value for DefaultAvailabilityZone, the subnet must be in that zone. For information on default values and when this parameter is required, see the VpcId parameter description.

Type: String

Required: No

HostnameTheme

The stack's new host name theme, with spaces replaced by underscores. The theme is used to generate host names for the stack's instances. By default, HostnameTheme is set to Layer_Dependent, which creates host names by appending integers to the layer's short name. The other themes are:

- Baked_Goods
- Clouds
- Europe_Cities
- Fruits
- Greek_Deities_and_Titans
- Legendary_creatures_from_Japan
- Planets_and_Moons
- Roman_Deities
- Scottish_Islands
- US_Cities
- Wild_Cats

To obtain a generated host name, call `GetHostNameSuggestion`, which returns a host name based on the current theme.

Type: String

Required: No

Name

The stack's new name. Stack names can be a maximum of 64 characters.

Type: String

Required: No

ServiceRoleArn

Do not use this parameter. You cannot update a stack's service role.

Type: String

Required: No

StackId

The stack ID.

Type: String

Required: Yes

UseCustomCookbooks

Whether the stack uses custom cookbooks.

Type: Boolean

Required: No

UseOpsworksSecurityGroups

Whether to associate the AWS OpsWorks Stacks built-in security groups with the stack's layers.

AWS OpsWorks Stacks provides a standard set of built-in security groups, one for each layer, which are associated with layers by default. `UseOpsworksSecurityGroups` allows you to provide your own custom security groups instead of using the built-in groups.

`UseOpsworksSecurityGroups` has the following settings:

- True - AWS OpsWorks Stacks automatically associates the appropriate built-in security group with each layer (default setting). You can associate additional security groups with a layer after you create it, but you cannot delete the built-in security group.
- False - AWS OpsWorks Stacks does not associate built-in security groups with layers. You must create appropriate EC2 security groups and associate a security group with each layer that you create. However, you can still manually associate a built-in security group with a layer on. Custom security groups are required only for those layers that need custom settings.

For more information, see [Create a New Stack](#).

Type: Boolean

Required: No

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UpdateUserProfile

Updates a specified user profile.

Required Permissions: To use this action, an IAM user must have an attached policy that explicitly grants permissions. For more information about user permissions, see [Managing User Permissions](#).

Request Syntax

```
{
  "AllowSelfManagement": boolean,
  "IamUserArn": "string",
  "SshPublicKey": "string",
  "SshUsername": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

[AllowSelfManagement](#)

Whether users can specify their own SSH public key through the My Settings page. For more information, see [Managing User Permissions](#).

Type: Boolean

Required: No

[IamUserArn](#)

The user IAM ARN. This can also be a federated user's ARN.

Type: String

Required: Yes

[SshPublicKey](#)

The user's new SSH public key.

Type: String

Required: No

SshUsername

The user's SSH user name. The allowable characters are [a-z], [A-Z], [0-9], '-', and '_'. If the specified name includes other punctuation marks, AWS OpsWorks Stacks removes them. For example, my . name will be changed to myname. If you do not specify an SSH user name, AWS OpsWorks Stacks generates one from the IAM user name.

Type: String

Required: No

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

UpdateVolume

Updates an Amazon EBS volume's name or mount point. For more information, see [Resource Management](#).

Required Permissions: To use this action, an IAM user must have a Manage permissions level for the stack, or an attached policy that explicitly grants permissions. For more information on user permissions, see [Managing User Permissions](#).

Request Syntax

```
{  
  "MountPoint": "string",  
  "Name": "string",  
  "VolumeId": "string"  
}
```

Request Parameters

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

The request accepts the following data in JSON format.

MountPoint

The new mount point.

Type: String

Required: No

Name

The new name. Volume names can be a maximum of 128 characters.

Type: String

Required: No

VolumeId

The volume ID.

Type: String

Required: Yes

Response Elements

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

Errors

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

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

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

Data Types

The AWS OpsWorks 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:

- [AgentVersion](#)
- [App](#)
- [AutoScalingThresholds](#)
- [BlockDeviceMapping](#)
- [ChefConfiguration](#)
- [CloudWatchLogsConfiguration](#)
- [CloudWatchLogsLogStream](#)
- [Command](#)
- [DataSource](#)
- [Deployment](#)
- [DeploymentCommand](#)
- [EbsBlockDevice](#)
- [EcsCluster](#)
- [ElasticIp](#)
- [ElasticLoadBalancer](#)
- [EnvironmentVariable](#)
- [Instance](#)
- [InstanceIdentity](#)
- [InstancesCount](#)
- [Layer](#)

- [LifecycleEventConfiguration](#)
- [LoadBasedAutoScalingConfiguration](#)
- [OperatingSystem](#)
- [OperatingSystemConfigurationManager](#)
- [Permission](#)
- [RaidArray](#)
- [RdsDbInstance](#)
- [Recipes](#)
- [ReportedOs](#)
- [SelfUserProfile](#)
- [ServiceError](#)
- [ShutdownEventConfiguration](#)
- [Source](#)
- [SslConfiguration](#)
- [Stack](#)
- [StackConfigurationManager](#)
- [StackSummary](#)
- [TemporaryCredential](#)
- [TimeBasedAutoScalingConfiguration](#)
- [UserProfile](#)
- [Volume](#)
- [VolumeConfiguration](#)
- [WeeklyAutoScalingSchedule](#)

AgentVersion

Describes an agent version.

Contents

ConfigurationManager

The configuration manager.

Type: [StackConfigurationManager](#) object

Required: No

Version

The agent version.

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

App

A description of the app.

Contents

AppId

The app ID.

Type: String

Required: No

AppSource

A `Source` object that describes the app repository.

Type: [Source](#) object

Required: No

Attributes

The stack attributes.

Type: String to string map

Valid Keys: `DocumentRoot` | `RailsEnv` | `AutoBundleOnDeploy` | `AwsFlowRubySettings`

Required: No

CreatedAt

When the app was created.

Type: String

Required: No

DataSources

The app's data sources.

Type: Array of [DataSource](#) objects

Required: No

Description

A description of the app.

Type: String

Required: No

Domains

The app vhost settings with multiple domains separated by commas. For example:

```
'www.example.com, example.com'
```

Type: Array of strings

Required: No

EnableSsl

Whether to enable SSL for the app.

Type: Boolean

Required: No

Environment

An array of `EnvironmentVariable` objects that specify environment variables to be associated with the app. After you deploy the app, these variables are defined on the associated app server instances. For more information, see [Environment Variables](#).

Note

There is no specific limit on the number of environment variables. However, the size of the associated data structure - which includes the variable names, values, and protected flag values - cannot exceed 20 KB. This limit should accommodate most if not all use cases, but if you do exceed it, you will cause an exception (API) with an "Environment: is too large (maximum is 20 KB)" message.

Type: Array of [EnvironmentVariable](#) objects

Required: No

Name

The app name.

Type: String

Required: No

Shortname

The app's short name.

Type: String

Required: No

SslConfiguration

An `SslConfiguration` object with the SSL configuration.

Type: [SslConfiguration](#) object

Required: No

StackId

The app stack ID.

Type: String

Required: No

Type

The app type.

Type: String

Valid Values: `aws-flow-ruby` | `java` | `rails` | `php` | `nodejs` | `static` | `other`

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

AutoScalingThresholds

Describes a load-based auto scaling upscaling or downscaling threshold configuration, which specifies when AWS OpsWorks Stacks starts or stops load-based instances.

Contents

Alarms

Custom CloudWatch auto scaling alarms, to be used as thresholds. This parameter takes a list of up to five alarm names, which are case sensitive and must be in the same region as the stack.

Note

To use custom alarms, you must update your service role to allow `cloudwatch:DescribeAlarms`. You can either have AWS OpsWorks Stacks update the role for you when you first use this feature or you can edit the role manually. For more information, see [Allowing AWS OpsWorks Stacks to Act on Your Behalf](#).

Type: Array of strings

Required: No

CpuThreshold

The CPU utilization threshold, as a percent of the available CPU. A value of -1 disables the threshold.

Type: Double

Required: No

IgnoreMetricsTime

The amount of time (in minutes) after a scaling event occurs that AWS OpsWorks Stacks should ignore metrics and suppress additional scaling events. For example, AWS OpsWorks Stacks adds new instances following an upscaling event but the instances won't start reducing the load until they have been booted and configured. There is no point in raising additional scaling events during that operation, which typically takes several minutes. `IgnoreMetricsTime` allows

you to direct AWS OpsWorks Stacks to suppress scaling events long enough to get the new instances online.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

InstanceCount

The number of instances to add or remove when the load exceeds a threshold.

Type: Integer

Required: No

LoadThreshold

The load threshold. A value of -1 disables the threshold. For more information about how load is computed, see [Load \(computing\)](#).

Type: Double

Required: No

MemoryThreshold

The memory utilization threshold, as a percent of the available memory. A value of -1 disables the threshold.

Type: Double

Required: No

ThresholdsWaitTime

The amount of time, in minutes, that the load must exceed a threshold before more instances are added or removed.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

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

BlockDeviceMapping

Describes a block device mapping. This data type maps directly to the Amazon EC2 [BlockDeviceMapping](#) data type.

Contents

DeviceName

The device name that is exposed to the instance, such as `/dev/sdh`. For the root device, you can use the explicit device name or you can set this parameter to `ROOT_DEVICE` and AWS OpsWorks Stacks will provide the correct device name.

Type: String

Required: No

Ebs

An `EBSBlockDevice` that defines how to configure an Amazon EBS volume when the instance is launched.

Type: [EbsBlockDevice](#) object

Required: No

NoDevice

Suppresses the specified device included in the AMI's block device mapping.

Type: String

Required: No

VirtualName

The virtual device name. For more information, see [BlockDeviceMapping](#).

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

ChefConfiguration

Describes the Chef configuration.

Contents

BerkshelfVersion

The Berkshelf version.

Type: String

Required: No

ManageBerkshelf

Whether to enable Berkshelf.

Type: Boolean

Required: No

See Also

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

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

CloudWatchLogsConfiguration

Describes the Amazon CloudWatch Logs configuration for a layer.

Contents

Enabled

Whether CloudWatch Logs is enabled for a layer.

Type: Boolean

Required: No

LogStreams

A list of configuration options for CloudWatch Logs.

Type: Array of [CloudWatchLogsLogStream](#) objects

Required: No

See Also

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

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

CloudWatchLogsLogStream

Describes the CloudWatch Logs configuration for a layer. For detailed information about members of this data type, see the [CloudWatch Logs Agent Reference](#).

Contents

BatchCount

Specifies the max number of log events in a batch, up to 10000. The default value is 1000.

Type: Integer

Required: No

BatchSize

Specifies the maximum size of log events in a batch, in bytes, up to 1048576 bytes. The default value is 32768 bytes. This size is calculated as the sum of all event messages in UTF-8, plus 26 bytes for each log event.

Type: Integer

Required: No

BufferDuration

Specifies the time duration for the batching of log events. The minimum value is 5000ms and default value is 5000ms.

Type: Integer

Required: No

DatetimeFormat

Specifies how the time stamp is extracted from logs. For more information, see the [CloudWatch Logs Agent Reference](#).

Type: String

Required: No

Encoding

Specifies the encoding of the log file so that the file can be read correctly. The default is `utf_8`. Encodings supported by Python `codecs.decode()` can be used here.

Type: String

Valid Values: `ascii` | `big5` | `big5hkscs` | `cp037` | `cp424` | `cp437` | `cp500` | `cp720` | `cp737` | `cp775` | `cp850` | `cp852` | `cp855` | `cp856` | `cp857` | `cp858` | `cp860` | `cp861` | `cp862` | `cp863` | `cp864` | `cp865` | `cp866` | `cp869` | `cp874` | `cp875` | `cp932` | `cp949` | `cp950` | `cp1006` | `cp1026` | `cp1140` | `cp1250` | `cp1251` | `cp1252` | `cp1253` | `cp1254` | `cp1255` | `cp1256` | `cp1257` | `cp1258` | `euc_jp` | `euc_jis_2004` | `euc_jisx0213` | `euc_kr` | `gb2312` | `gbk` | `gb18030` | `hz` | `iso2022_jp` | `iso2022_jp_1` | `iso2022_jp_2` | `iso2022_jp_2004` | `iso2022_jp_3` | `iso2022_jp_ext` | `iso2022_kr` | `latin_1` | `iso8859_2` | `iso8859_3` | `iso8859_4` | `iso8859_5` | `iso8859_6` | `iso8859_7` | `iso8859_8` | `iso8859_9` | `iso8859_10` | `iso8859_13` | `iso8859_14` | `iso8859_15` | `iso8859_16` | `johab` | `koi8_r` | `koi8_u` | `mac_cyrillic` | `mac_greek` | `mac_iceland` | `mac_latin2` | `mac_roman` | `mac_turkish` | `ptcp154` | `shift_jis` | `shift_jis_2004` | `shift_jisx0213` | `utf_32` | `utf_32_be` | `utf_32_le` | `utf_16` | `utf_16_be` | `utf_16_le` | `utf_7` | `utf_8` | `utf_8_sig`

Required: No

File

Specifies log files that you want to push to CloudWatch Logs.

File can point to a specific file or multiple files (by using wild card characters such as `/var/log/system.log*`). Only the latest file is pushed to CloudWatch Logs, based on file modification time. We recommend that you use wild card characters to specify a series of files of the same type, such as `access_log.2014-06-01-01`, `access_log.2014-06-01-02`, and so on by using a pattern like `access_log.*`. Don't use a wildcard to match multiple file types, such as `access_log_80` and `access_log_443`. To specify multiple, different file types, add another log stream entry to the configuration file, so that each log file type is stored in a different log group.

Zipped files are not supported.

Type: String

Required: No

FileFingerprintLines

Specifies the range of lines for identifying a file. The valid values are one number, or two dash-delimited numbers, such as '1', '2-5'. The default value is '1', meaning the first line is used to calculate the fingerprint. Fingerprint lines are not sent to CloudWatch Logs unless all specified lines are available.

Type: String

Required: No

InitialPosition

Specifies where to start to read data (`start_of_file` or `end_of_file`). The default is `start_of_file`. This setting is only used if there is no state persisted for that log stream.

Type: String

Valid Values: `start_of_file` | `end_of_file`

Required: No

LogGroupName

Specifies the destination log group. A log group is created automatically if it doesn't already exist. Log group names can be between 1 and 512 characters long. Allowed characters include a-z, A-Z, 0-9, '_' (underscore), '-' (hyphen), '/' (forward slash), and '.' (period).

Type: String

Required: No

MultiLineStartPattern

Specifies the pattern for identifying the start of a log message.

Type: String

Required: No

TimeZone

Specifies the time zone of log event time stamps.

Type: String

Valid Values: LOCAL | UTC

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

Command

Describes a command.

Contents

AcknowledgedAt

Date and time when the command was acknowledged.

Type: String

Required: No

CommandId

The command ID.

Type: String

Required: No

CompletedAt

Date when the command completed.

Type: String

Required: No

CreatedAt

Date and time when the command was run.

Type: String

Required: No

DeploymentId

The command deployment ID.

Type: String

Required: No

ExitCode

The command exit code.

Type: Integer

Required: No

InstanceId

The ID of the instance where the command was executed.

Type: String

Required: No

LogUrl

The URL of the command log.

Type: String

Required: No

Status

The command status:

- failed
- successful
- skipped
- pending

Type: String

Required: No

Type

The command type:

- configure
- deploy
- execute_recipes
- install_dependencies

- restart
- rollback
- setup
- start
- stop
- undeploy
- update_custom_cookbooks
- update_dependencies

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

DataSource

Describes an app's data source.

Contents

Arn

The data source's ARN.

Type: String

Required: No

DatabaseName

The database name.

Type: String

Required: No

Type

The data source's type, `AutoSelectOpsworksMysqlInstance`, `OpsworksMysqlInstance`, `RdsDbInstance`, or `None`.

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

Deployment

Describes a deployment of a stack or app.

Contents

AppId

The app ID.

Type: String

Required: No

Command

Used to specify a stack or deployment command.

Type: [DeploymentCommand](#) object

Required: No

Comment

A user-defined comment.

Type: String

Required: No

CompletedAt

Date when the deployment completed.

Type: String

Required: No

CreatedAt

Date when the deployment was created.

Type: String

Required: No

CustomJson

A string that contains user-defined custom JSON. It can be used to override the corresponding default stack configuration attribute values for stack or to pass data to recipes. The string should be in the following format:

```
"{\"key1\": \"value1\", \"key2\": \"value2\", ...}\"
```

For more information on custom JSON, see [Use Custom JSON to Modify the Stack Configuration Attributes](#).

Type: String

Required: No

DeploymentId

The deployment ID.

Type: String

Required: No

Duration

The deployment duration.

Type: Integer

Required: No

IamUserArn

The user's IAM ARN.

Type: String

Required: No

InstanceIds

The IDs of the target instances.

Type: Array of strings

Required: No

StackId

The stack ID.

Type: String

Required: No

Status

The deployment status:

- running
- successful
- failed

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

DeploymentCommand

Used to specify a stack or deployment command.

Contents

Name

Specifies the operation. You can specify only one command.

For stacks, the following commands are available:

- `execute_recipes`: Execute one or more recipes. To specify the recipes, set an `Args` parameter named `recipes` to the list of recipes to be executed. For example, to execute `phpapp::appsetup`, set `Args` to `{"recipes":["phpapp::appsetup"]}`.
- `install_dependencies`: Install the stack's dependencies.
- `update_custom_cookbooks`: Update the stack's custom cookbooks.
- `update_dependencies`: Update the stack's dependencies.

Note

The `update_dependencies` and `install_dependencies` commands are supported only for Linux instances. You can run the commands successfully on Windows instances, but they do nothing.

For apps, the following commands are available:

- `deploy`: Deploy an app. Ruby on Rails apps have an optional `Args` parameter named `migrate`. Set `Args` to `{"migrate":["true"]}` to migrate the database. The default setting is `{"migrate":["false"]}`.
- `rollback`: Roll the app back to the previous version. When you update an app, AWS OpsWorks Stacks stores the previous version, up to a maximum of five versions. You can use this command to roll an app back as many as four versions.
- `start`: Start the app's web or application server.
- `stop`: Stop the app's web or application server.
- `restart`: Restart the app's web or application server.
- `undeploy`: Undeploy the app.

Type: String

Valid Values: `install_dependencies` | `update_dependencies` | `update_custom_cookbooks` | `execute_recipes` | `configure` | `setup` | `deploy` | `rollback` | `start` | `stop` | `restart` | `undeploy`

Required: Yes

Args

The arguments of those commands that take arguments. It should be set to a JSON object with the following format:

```
{"arg_name1" : ["value1", "value2", ...], "arg_name2" : ["value1", "value2", ...], ...}
```

The `update_dependencies` command takes two arguments:

- `upgrade_os_to` - Specifies the Amazon Linux version that you want instances to run, such as Amazon Linux 2. You must also set the `allow_reboot` argument to true.
- `allow_reboot` - Specifies whether to allow AWS OpsWorks Stacks to reboot the instances if necessary, after installing the updates. This argument can be set to either true or false. The default value is false.

For example, to upgrade an instance to Amazon Linux 2018.03, set `Args` to the following.

```
{ "upgrade_os_to":["Amazon Linux 2018.03"], "allow_reboot":["true"] }
```

Type: String to array of strings map

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

EbsBlockDevice

Describes an Amazon EBS volume. This data type maps directly to the Amazon EC2 [EbsBlockDevice](#) data type.

Contents

DeleteOnTermination

Whether the volume is deleted on instance termination.

Type: Boolean

Required: No

Iops

The number of I/O operations per second (IOPS) that the volume supports. For more information, see [EbsBlockDevice](#).

Type: Integer

Required: No

SnapshotId

The snapshot ID.

Type: String

Required: No

VolumeSize

The volume size, in GiB. For more information, see [EbsBlockDevice](#).

Type: Integer

Required: No

VolumeType

The volume type. `gp2` for General Purpose (SSD) volumes, `io1` for Provisioned IOPS (SSD) volumes, `st1` for Throughput Optimized hard disk drives (HDD), `sc1` for Cold HDD, and `standard` for Magnetic volumes.

If you specify the `io1` volume type, you must also specify a value for the `Iops` attribute. The maximum ratio of provisioned IOPS to requested volume size (in GiB) is 50:1. AWS uses the default volume size (in GiB) specified in the AMI attributes to set IOPS to 50 x (volume size).

Type: String

Valid Values: `gp2` | `io1` | `standard`

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

EcsCluster

Describes a registered Amazon ECS cluster.

Contents

EcsClusterArn

The cluster's ARN.

Type: String

Required: No

EcsClusterName

The cluster name.

Type: String

Required: No

RegisteredAt

The time and date that the cluster was registered with the stack.

Type: String

Required: No

StackId

The stack 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 Java V2](#)
- [AWS SDK for Ruby V3](#)

ElasticIp

Describes an Elastic IP address.

Contents

Domain

The domain.

Type: String

Required: No

InstanceId

The ID of the instance that the address is attached to.

Type: String

Required: No

Ip

The IP address.

Type: String

Required: No

Name

The name, which can be a maximum of 32 characters.

Type: String

Required: No

Region

The AWS Region. For more information, see [Regions and Endpoints](#).

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

ElasticLoadBalancer

Describes an Elastic Load Balancing instance.

Contents

AvailabilityZones

A list of Availability Zones.

Type: Array of strings

Required: No

DnsName

The instance's public DNS name.

Type: String

Required: No

Ec2InstanceIds

A list of the EC2 instances for which the Elastic Load Balancing instance is managing traffic.

Type: Array of strings

Required: No

ElasticLoadBalancerName

The Elastic Load Balancing instance name.

Type: String

Required: No

LayerId

The ID of the layer to which the instance is attached.

Type: String

Required: No

Region

The instance's AWS Region.

Type: String

Required: No

StackId

The ID of the stack with which the instance is associated.

Type: String

Required: No

SubnetIds

A list of subnet IDs, if the stack is running in a VPC.

Type: Array of strings

Required: No

VpcId

The VPC 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 Java V2](#)
- [AWS SDK for Ruby V3](#)

EnvironmentVariable

Represents an app's environment variable.

Contents

Key

(Required) The environment variable's name, which can consist of up to 64 characters and must be specified. The name can contain upper- and lowercase letters, numbers, and underscores (`_`), but it must start with a letter or underscore.

Type: String

Required: Yes

Value

(Optional) The environment variable's value, which can be left empty. If you specify a value, it can contain up to 256 characters, which must all be printable.

Type: String

Required: Yes

Secure

(Optional) Whether the variable's value is returned by the [DescribeApps](#) action. To hide an environment variable's value, set `Secure` to `true`. `DescribeApps` returns `*****FILTERED*****` instead of the actual value. The default value for `Secure` is `false`.

Type: Boolean

Required: No

See Also

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

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

- [AWS SDK for Ruby V3](#)

Instance

Describes an instance.

Contents

AgentVersion

The agent version. This parameter is set to INHERIT if the instance inherits the default stack setting or to a a version number for a fixed agent version.

Type: String

Required: No

Amild

A custom AMI ID to be used to create the instance. For more information, see [Instances](#)

Type: String

Required: No

Architecture

The instance architecture: "i386" or "x86_64".

Type: String

Valid Values: x86_64 | i386

Required: No

Arn

The instance's Amazon Resource Number (ARN).

Type: String

Required: No

AutoScalingType

For load-based or time-based instances, the type.

Type: String

Valid Values: load | timer

Required: No

AvailabilityZone

The instance Availability Zone. For more information, see [Regions and Endpoints](#).

Type: String

Required: No

BlockDeviceMappings

An array of BlockDeviceMapping objects that specify the instance's block device mappings.

Type: Array of [BlockDeviceMapping](#) objects

Required: No

CreatedAt

The time that the instance was created.

Type: String

Required: No

EbsOptimized

Whether this is an Amazon EBS-optimized instance.

Type: Boolean

Required: No

Ec2InstanceId

The ID of the associated Amazon EC2 instance.

Type: String

Required: No

EcsClusterArn

For container instances, the Amazon ECS cluster's ARN.

Type: String

Required: No

EcsContainerInstanceArn

For container instances, the instance's ARN.

Type: String

Required: No

ElasticIp

The instance [Elastic IP address](#).

Type: String

Required: No

Hostname

The instance host name. The following are character limits for instance host names.

- Linux-based instances: 63 characters
- Windows-based instances: 15 characters

Type: String

Required: No

InfrastructureClass

For registered instances, the infrastructure class: ec2 or on-premises.


Type: String

Required: No

InstallUpdatesOnBoot

Whether to install operating system and package updates when the instance boots. The default value is `true`. If this value is set to `false`, you must update instances manually by using

[CreateDeployment](#) to run the `update_dependencies` stack command or by manually running `yum` (Amazon Linux) or `apt-get` (Ubuntu) on the instances.

 **Note**

We strongly recommend using the default value of `true` to ensure that your instances have the latest security updates.

Type: Boolean

Required: No

InstanceId

The instance ID.

Type: String

Required: No

InstanceProfileArn

The ARN of the instance's IAM profile. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No

InstanceType

The instance type, such as `t2.micro`.

Type: String

Required: No

LastServiceErrorId

The ID of the last service error. For more information, call [DescribeServiceErrors](#).

Type: String

Required: No

LayerIds

An array containing the instance layer IDs.

Type: Array of strings

Required: No

Os

The instance's operating system.

Type: String

Required: No

Platform

The instance's platform.

Type: String

Required: No

PrivateDns

The instance's private DNS name.

Type: String

Required: No

PrivateIp

The instance's private IP address.

Type: String

Required: No

PublicDns

The instance public DNS name.

Type: String

Required: No

PublicIp

The instance public IP address.

Type: String

Required: No

RegisteredBy

For registered instances, who performed the registration.

Type: String

Required: No

ReportedAgentVersion

The instance's reported AWS OpsWorks Stacks agent version.

Type: String

Required: No

ReportedOs

For registered instances, the reported operating system.

Type: [ReportedOs](#) object

Required: No

RootDeviceType

The instance's root device type. For more information, see [Storage for the Root Device](#).

Type: String

Valid Values: ebs | instance-store

Required: No

RootDeviceVolumeId

The root device volume ID.

Type: String

Required: No

SecurityGroupIds

An array containing the instance security group IDs.

Type: Array of strings

Required: No

SshHostDsaKeyFingerprint

The SSH key's Deep Security Agent (DSA) fingerprint.

Type: String

Required: No

SshHostRsaKeyFingerprint

The SSH key's RSA fingerprint.

Type: String

Required: No

SshKeyName

The instance's Amazon EC2 key-pair name.

Type: String

Required: No

StackId

The stack ID.

Type: String

Required: No

Status

The instance status:

- booting

- `connection_lost`
- `online`
- `pending`
- `rebooting`
- `requested`
- `running_setup`
- `setup_failed`
- `shutting_down`
- `start_failed`
- `stop_failed`
- `stopped`
- `stopping`
- `terminated`
- `terminating`

Type: String

Required: No

SubnetId

The instance's subnet ID; applicable only if the stack is running in a VPC.

Type: String

Required: No

Tenancy

The instance's tenancy option, such as `dedicated` or `host`.

Type: String

Required: No

VirtualizationType

The instance's virtualization type: `paravirtual` or `hvm`.

Type: String

Valid Values: `paravirtual` | `hvm`

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

InstanceIdentity

Contains a description of an Amazon EC2 instance from the Amazon EC2 metadata service. For more information, see [Instance Metadata and User Data](#).

Contents

Document

A JSON document that contains the metadata.

Type: String

Required: No

Signature

A signature that can be used to verify the document's accuracy and authenticity.

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

InstancesCount

Describes how many instances a stack has for each status.

Contents

Assigning

The number of instances in the Assigning state.

Type: Integer

Required: No

Booting

The number of instances with booting status.

Type: Integer

Required: No

ConnectionLost

The number of instances with `connection_lost` status.

Type: Integer

Required: No

Deregistering

The number of instances in the Deregistering state.

Type: Integer

Required: No

Online

The number of instances with online status.

Type: Integer

Required: No

Pending

The number of instances with `pending` status.

Type: Integer

Required: No

Rebooting

The number of instances with `rebooting` status.

Type: Integer

Required: No

Registered

The number of instances in the `Registered` state.

Type: Integer

Required: No

Registering

The number of instances in the `Registering` state.

Type: Integer

Required: No

Requested

The number of instances with `requested` status.

Type: Integer

Required: No

RunningSetup

The number of instances with `running_setup` status.

Type: Integer

Required: No

SetupFailed

The number of instances with `setup_failed` status.

Type: Integer

Required: No

ShuttingDown

The number of instances with `shutting_down` status.

Type: Integer

Required: No

StartFailed

The number of instances with `start_failed` status.

Type: Integer

Required: No

StopFailed

The number of instances with `stop_failed` status.

Type: Integer

Required: No

Stopped

The number of instances with `stopped` status.

Type: Integer

Required: No

Stopping

The number of instances with `stopping` status.

Type: Integer

Required: No

Terminated

The number of instances with `terminated` status.

Type: Integer

Required: No

Terminating

The number of instances with `terminating` status.

Type: Integer

Required: No

Unassigning

The number of instances in the `Unassigning` state.

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

Layer

Describes a layer.

Contents

Arn

The Amazon Resource Number (ARN) of a layer.

Type: String

Required: No

Attributes

The layer attributes.

For the `HaproxyStatsPassword`, `MysqlRootPassword`, and `GangliaPassword` attributes, AWS OpsWorks Stacks returns `*****FILTERED*****` instead of the actual value

For an ECS Cluster layer, AWS OpsWorks Stacks the `EcsClusterArn` attribute is set to the cluster's ARN.

Type: String to string map

Valid Keys: `EcsClusterArn` | `EnableHaproxyStats` | `HaproxyStatsUrl` | `HaproxyStatsUser` | `HaproxyStatsPassword` | `HaproxyHealthCheckUrl` | `HaproxyHealthCheckMethod` | `MysqlRootPassword` | `MysqlRootPasswordUbiquitous` | `GangliaUrl` | `GangliaUser` | `GangliaPassword` | `MemcachedMemory` | `NodejsVersion` | `RubyVersion` | `RubygemsVersion` | `ManageBundler` | `BundlerVersion` | `RailsStack` | `PassengerVersion` | `Jvm` | `JvmVersion` | `JvmOptions` | `JavaAppServer` | `JavaAppServerVersion`

Required: No

AutoAssignElasticIps

Whether to automatically assign an [Elastic IP address](#) to the layer's instances. For more information, see [How to Edit a Layer](#).

Type: Boolean

Required: No

AutoAssignPublicIps

For stacks that are running in a VPC, whether to automatically assign a public IP address to the layer's instances. For more information, see [How to Edit a Layer](#).

Type: Boolean

Required: No

CloudWatchLogsConfiguration

The Amazon CloudWatch Logs configuration settings for the layer.

Type: [CloudWatchLogsConfiguration](#) object

Required: No

CreatedAt

Date when the layer was created.

Type: String

Required: No

CustomInstanceProfileArn

The ARN of the default IAM profile to be used for the layer's EC2 instances. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No

CustomJson

A JSON formatted string containing the layer's custom stack configuration and deployment attributes.

Type: String

Required: No

CustomRecipes

A `LayerCustomRecipes` object that specifies the layer's custom recipes.

Type: [Recipes](#) object

Required: No

CustomSecurityGroupIds

An array containing the layer's custom security group IDs.

Type: Array of strings

Required: No

DefaultRecipes

AWS OpsWorks Stacks supports five lifecycle events: **setup**, **configuration**, **deploy**, **undeploy**, and **shutdown**. For each layer, AWS OpsWorks Stacks runs a set of standard recipes for each event. You can also provide custom recipes for any or all layers and events. AWS OpsWorks Stacks runs custom event recipes after the standard recipes. `LayerCustomRecipes` specifies the custom recipes for a particular layer to be run in response to each of the five events.

To specify a recipe, use the cookbook's directory name in the repository followed by two colons and the recipe name, which is the recipe's file name without the `.rb` extension. For example: `phpapp2::dbsetup` specifies the `dbsetup.rb` recipe in the repository's `phpapp2` folder.

Type: [Recipes](#) object

Required: No

DefaultSecurityGroupNames

An array containing the layer's security group names.

Type: Array of strings

Required: No

EnableAutoHealing

Whether auto healing is disabled for the layer.

Type: Boolean

Required: No

InstallUpdatesOnBoot

Whether to install operating system and package updates when the instance boots. The default value is `true`. If this value is set to `false`, you must then update your instances manually by using [CreateDeployment](#) to run the `update_dependencies` stack command or manually running `yum` (Amazon Linux) or `apt-get` (Ubuntu) on the instances.

Note

We strongly recommend using the default value of `true`, to ensure that your instances have the latest security updates.

Type: Boolean

Required: No

LayerId

The layer ID.

Type: String

Required: No

LifecycleEventConfiguration

A `LifeCycleEventConfiguration` object that specifies the Shutdown event configuration.

Type: [LifecycleEventConfiguration](#) object

Required: No

Name

The layer name. Layer names can be a maximum of 32 characters.

Type: String

Required: No

Packages

An array of `Package` objects that describe the layer's packages.

Type: Array of strings

Required: No

Shortname

The layer short name.

Type: String

Required: No

StackId

The layer stack ID.

Type: String

Required: No

Type

The layer type.

Type: String

Valid Values: `aws-flow-ruby | ecs-cluster | java-app | lb | web | php-app | rails-app | nodejs-app | memcached | db-master | monitoring-master | custom`

Required: No

UseEbsOptimizedInstances

Whether the layer uses Amazon EBS-optimized instances.

Type: Boolean

Required: No

VolumeConfigurations

A `VolumeConfigurations` object that describes the layer's Amazon EBS volumes.

Type: Array of [VolumeConfiguration](#) objects

Required: No

See Also

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

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

LifecycleEventConfiguration

Specifies the lifecycle event configuration

Contents

Shutdown

A `ShutdownEventConfiguration` object that specifies the Shutdown event configuration.

Type: [ShutdownEventConfiguration](#) 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 Java V2](#)
- [AWS SDK for Ruby V3](#)

LoadBasedAutoScalingConfiguration

Describes a layer's load-based auto scaling configuration.

Contents

DownScaling

An `AutoScalingThresholds` object that describes the downscaling configuration, which defines how and when AWS OpsWorks Stacks reduces the number of instances.

Type: [AutoScalingThresholds](#) object

Required: No

Enable

Whether load-based auto scaling is enabled for the layer.

Type: Boolean

Required: No

LayerId

The layer ID.

Type: String

Required: No

UpScaling

An `AutoScalingThresholds` object that describes the upscaling configuration, which defines how and when AWS OpsWorks Stacks increases the number of instances.

Type: [AutoScalingThresholds](#) 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 Java V2](#)
- [AWS SDK for Ruby V3](#)

OperatingSystem

Describes supported operating systems in AWS OpsWorks Stacks.

Contents

ConfigurationManagers

Supported configuration manager name and versions for an AWS OpsWorks Stacks operating system.

Type: Array of [OperatingSystemConfigurationManager](#) objects

Required: No

Id

The ID of a supported operating system, such as Amazon Linux 2.

Type: String

Required: No

Name

The name of the operating system, such as Amazon Linux 2.

Type: String

Required: No

ReportedName

A short name for the operating system manufacturer.

Type: String

Required: No

ReportedVersion

The version of the operating system, including the release and edition, if applicable.

Type: String

Required: No

Supported

Indicates that an operating system is not supported for new instances.

Type: Boolean

Required: No

Type

The type of a supported operating system, either Linux or Windows.

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

OperatingSystemConfigurationManager

A block that contains information about the configuration manager (Chef) and the versions of the configuration manager that are supported for an operating system.

Contents

Name

The name of the configuration manager, which is Chef.

Type: String

Required: No

Version

The versions of the configuration manager that are supported by an operating system.

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

Permission

Describes stack or user permissions.

Contents

AllowSsh

Whether the user can use SSH.

Type: Boolean

Required: No

AllowSudo

Whether the user can use **sudo**.

Type: Boolean

Required: No

IamUserArn

The Amazon Resource Name (ARN) for an AWS Identity and Access Management (IAM) role. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No

Level

The user's permission level, which must be the following:

- deny
- show
- deploy
- manage
- iam_only

For more information on the permissions associated with these levels, see [Managing User Permissions](#)

Type: String

Required: No

StackId

A stack 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 Java V2](#)
- [AWS SDK for Ruby V3](#)

RaidArray

Describes an instance's RAID array.

Contents

AvailabilityZone

The array's Availability Zone. For more information, see [Regions and Endpoints](#).

Type: String

Required: No

CreatedAt

When the RAID array was created.

Type: String

Required: No

Device

The array's Linux device. For example `/dev/mdadm0`.

Type: String

Required: No

InstanceId

The instance ID.

Type: String

Required: No

Iops

For PIOPS volumes, the IOPS per disk.

Type: Integer

Required: No

MountPoint

The array's mount point.

Type: String

Required: No

Name

The array name.

Type: String

Required: No

NumberOfDisks

The number of disks in the array.

Type: Integer

Required: No

RaidArrayId

The array ID.

Type: String

Required: No

RaidLevel

The [RAID level](#).

Type: Integer

Required: No

Size

The array's size.

Type: Integer

Required: No

StackId

The stack ID.

Type: String

Required: No

VolumeType

The volume type, standard or PIOPS.

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

RdsDbInstance

Describes an Amazon RDS instance.

Contents

Address

The instance's address.

Type: String

Required: No

DbInstanceIdentifier

The database instance identifier.

Type: String

Required: No

DbPassword

AWS OpsWorks Stacks returns `*****FILTERED*****` instead of the actual value.

Type: String

Required: No

DbUser

The master user name.

Type: String

Required: No

Engine

The instance's database engine.

Type: String

Required: No

MissingOnRds

Set to `true` if AWS OpsWorks Stacks is unable to discover the Amazon RDS instance. AWS OpsWorks Stacks attempts to discover the instance only once. If this value is set to `true`, you must deregister the instance, and then register it again.

Type: Boolean

Required: No

RdsDbInstanceArn

The instance's ARN.

Type: String

Required: No

Region

The instance's AWS Region.

Type: String

Required: No

StackId

The ID of the stack with which the instance is registered.

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

Recipes

AWS OpsWorks Stacks supports five lifecycle events: **setup**, **configuration**, **deploy**, **undeploy**, and **shutdown**. For each layer, AWS OpsWorks Stacks runs a set of standard recipes for each event. In addition, you can provide custom recipes for any or all layers and events. AWS OpsWorks Stacks runs custom event recipes after the standard recipes. `LayerCustomRecipes` specifies the custom recipes for a particular layer to be run in response to each of the five events.

To specify a recipe, use the cookbook's directory name in the repository followed by two colons and the recipe name, which is the recipe's file name without the `.rb` extension. For example: `phpapp2::dbsetup` specifies the `dbsetup.rb` recipe in the repository's `phpapp2` folder.

Contents

Configure

An array of custom recipe names to be run following a `configure` event.

Type: Array of strings

Required: No

Deploy

An array of custom recipe names to be run following a `deploy` event.

Type: Array of strings

Required: No

Setup

An array of custom recipe names to be run following a `setup` event.

Type: Array of strings

Required: No

Shutdown

An array of custom recipe names to be run following a `shutdown` event.

Type: Array of strings

Required: No

Undeploy

An array of custom recipe names to be run following a undeploy event.

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

ReportedOs

A registered instance's reported operating system.

Contents

Family

The operating system family.

Type: String

Required: No

Name

The operating system name.

Type: String

Required: No

Version

The operating system version.

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

SelfUserProfile

Describes a user's SSH information.

Contents

IamUserArn

The user's IAM ARN.

Type: String

Required: No

Name

The user's name.

Type: String

Required: No

SshPublicKey

The user's SSH public key.

Type: String

Required: No

SshUsername

The user's SSH user name.

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

ServiceError

Describes an AWS OpsWorks Stacks service error.

Contents

CreatedAt

When the error occurred.

Type: String

Required: No

InstanceId

The instance ID.

Type: String

Required: No

Message

A message that describes the error.

Type: String

Required: No

ServiceErrorId

The error ID.

Type: String

Required: No

StackId

The stack ID.

Type: String

Required: No

Type

The error 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 Java V2](#)
- [AWS SDK for Ruby V3](#)

ShutdownEventConfiguration

The Shutdown event configuration.

Contents

DelayUntilElbConnectionsDrained

Whether to enable Elastic Load Balancing connection draining. For more information, see [Connection Draining](#)

Type: Boolean

Required: No

ExecutionTimeout

The time, in seconds, that AWS OpsWorks Stacks waits after triggering a Shutdown event before shutting down an instance.

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

Source

Contains the information required to retrieve an app or cookbook from a repository. For more information, see [Creating Apps](#) or [Custom Recipes and Cookbooks](#).

Contents

Password

When included in a request, the parameter depends on the repository type.

- For Amazon S3 bundles, set Password to the appropriate IAM secret access key.
- For HTTP bundles and Subversion repositories, set Password to the password.

For more information on how to safely handle IAM credentials, see <https://docs.aws.amazon.com/general/latest/gr/aws-access-keys-best-practices.html>.

In responses, AWS OpsWorks Stacks returns *****FILTERED***** instead of the actual value.

Type: String

Required: No

Revision

The application's version. AWS OpsWorks Stacks enables you to easily deploy new versions of an application. One of the simplest approaches is to have branches or revisions in your repository that represent different versions that can potentially be deployed.

Type: String

Required: No

SshKey

In requests, the repository's SSH key.

In responses, AWS OpsWorks Stacks returns *****FILTERED***** instead of the actual value.

Type: String

Required: No

Type

The repository type.

Type: String

Valid Values: `git` | `svn` | `archive` | `s3`

Required: No

Url

The source URL. The following is an example of an Amazon S3 source URL: `https://s3.amazonaws.com/opsworks-demo-bucket/opsworks_cookbook_demo.tar.gz`.

Type: String

Required: No

Username

This parameter depends on the repository type.

- For Amazon S3 bundles, set `Username` to the appropriate IAM access key ID.
- For HTTP bundles, Git repositories, and Subversion repositories, set `Username` to the user name.

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

SslConfiguration

Describes an app's SSL configuration.

Contents

Certificate

The contents of the certificate's domain.crt file.

Type: String

Required: Yes

PrivateKey

The private key; the contents of the certificate's domain.kex file.

Type: String

Required: Yes

Chain

Optional. Can be used to specify an intermediate certificate authority key or client authentication.

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

Stack

Describes a stack.

Contents

AgentVersion

The agent version. This parameter is set to LATEST for auto-update, or a version number for a fixed agent version.

Type: String

Required: No

Arn

The stack's ARN.

Type: String

Required: No

Attributes

The stack's attributes.

Type: String to string map

Valid Keys: Color

Required: No

ChefConfiguration

A ChefConfiguration object that specifies whether to enable Berkshelf and the Berkshelf version. For more information, see [Create a New Stack](#).

Type: [ChefConfiguration](#) object

Required: No

ConfigurationManager

The configuration manager.

Type: [StackConfigurationManager](#) object

Required: No

CreatedAt

The date when the stack was created.

Type: String

Required: No

CustomCookbooksSource

Contains the information required to retrieve an app or cookbook from a repository. For more information, see [Adding Apps](#) or [Cookbooks and Recipes](#).

Type: [Source](#) object

Required: No

CustomJson

A JSON object that contains user-defined attributes to be added to the stack configuration and deployment attributes. You can use custom JSON to override the corresponding default stack configuration attribute values or to pass data to recipes. The string should be in the following format:

```
"{"key1": "value1", "key2": "value2", ...}"
```

For more information on custom JSON, see [Use Custom JSON to Modify the Stack Configuration Attributes](#).

Type: String

Required: No

DefaultAvailabilityZone

The stack's default Availability Zone. For more information, see [Regions and Endpoints](#).

Type: String

Required: No

DefaultInstanceProfileArn

The ARN of an IAM profile that is the default profile for all of the stack's EC2 instances. For more information about IAM ARNs, see [Using Identifiers](#).

Type: String

Required: No

DefaultOs

The stack's default operating system.

Type: String

Required: No

DefaultRootDeviceType

The default root device type. This value is used by default for all instances in the stack, but you can override it when you create an instance. For more information, see [Storage for the Root Device](#).

Type: String

Valid Values: ebs | instance-store

Required: No

DefaultSshKeyName

A default Amazon EC2 key pair for the stack's instances. You can override this value when you create or update an instance.

Type: String

Required: No

DefaultSubnetId

The default subnet ID; applicable only if the stack is running in a VPC.

Type: String

Required: No

HostnameTheme

The stack host name theme, with spaces replaced by underscores.

Type: String

Required: No

Name

The stack name. Stack names can be a maximum of 64 characters.

Type: String

Required: No

Region

The stack AWS Region, such as `ap-northeast-2`. For more information about AWS Regions, see [Regions and Endpoints](#).

Type: String

Required: No

ServiceRoleArn

The stack AWS Identity and Access Management (IAM) role.

Type: String

Required: No

StackId

The stack ID.

Type: String

Required: No

UseCustomCookbooks

Whether the stack uses custom cookbooks.

Type: Boolean

Required: No

UseOpsworksSecurityGroups

Whether the stack automatically associates the AWS OpsWorks Stacks built-in security groups with the stack's layers.

Type: Boolean

Required: No

VpcId

The VPC ID; applicable only if the stack is running in a VPC.

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

StackConfigurationManager

Describes the configuration manager.

Contents

Name

The name. This parameter must be set to Chef.

Type: String

Required: No

Version

The Chef version. This parameter must be set to 12, 11.10, or 11.4 for Linux stacks, and to 12.2 for Windows stacks. The default value for Linux stacks is 12.

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

StackSummary

Summarizes the number of layers, instances, and apps in a stack.

Contents

AppsCount

The number of apps.

Type: Integer

Required: No

Arn

The stack's ARN.

Type: String

Required: No

InstancesCount

An InstancesCount object with the number of instances in each status.

Type: [InstancesCount](#) object

Required: No

LayersCount

The number of layers.

Type: Integer

Required: No

Name

The stack name.

Type: String

Required: No

StackId

The stack 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 Java V2](#)
- [AWS SDK for Ruby V3](#)

TemporaryCredential

Contains the data needed by RDP clients such as the Microsoft Remote Desktop Connection to log in to the instance.

Contents

InstanceId

The instance's AWS OpsWorks Stacks ID.

Type: String

Required: No

Password

The password.

Type: String

Required: No

Username

The user name.

Type: String

Required: No

ValidForInMinutes

The length of time (in minutes) that the grant is valid. When the grant expires, at the end of this period, the user will no longer be able to use the credentials to log in. If they are logged in at the time, they are automatically logged out.

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

TimeBasedAutoScalingConfiguration

Describes an instance's time-based auto scaling configuration.

Contents

AutoScalingSchedule

A `WeeklyAutoScalingSchedule` object with the instance schedule.

Type: [WeeklyAutoScalingSchedule](#) object

Required: No

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

UserProfile

Describes a user's SSH information.

Contents

AllowSelfManagement

Whether users can specify their own SSH public key through the My Settings page. For more information, see [Managing User Permissions](#).

Type: Boolean

Required: No

IamUserArn

The user's IAM ARN.

Type: String

Required: No

Name

The user's name.

Type: String

Required: No

SshPublicKey

The user's SSH public key.

Type: String

Required: No

SshUsername

The user's SSH user name.

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

Volume

Describes an instance's Amazon EBS volume.

Contents

AvailabilityZone

The volume Availability Zone. For more information, see [Regions and Endpoints](#).

Type: String

Required: No

Device

The device name.

Type: String

Required: No

Ec2Volumeld

The Amazon EC2 volume ID.

Type: String

Required: No

Encrypted

Specifies whether an Amazon EBS volume is encrypted. For more information, see [Amazon EBS Encryption](#).

Type: Boolean

Required: No

Instanceid

The instance ID.

Type: String

Required: No

Iops

For PIOPS volumes, the IOPS per disk.

Type: Integer

Required: No

MountPoint

The volume mount point. For example, `"/mnt/disk1"`.

Type: String

Required: No

Name

The volume name. Volume names are a maximum of 128 characters.

Type: String

Required: No

RaidArrayId

The RAID array ID.

Type: String

Required: No

Region

The AWS Region. For more information about AWS Regions, see [Regions and Endpoints](#).

Type: String

Required: No

Size

The volume size.

Type: Integer

Required: No

Status

The value returned by [DescribeVolumes](#).

Type: String

Required: No

Volumeld

The volume ID.

Type: String

Required: No

VolumeType

The volume type. For more information, see [Amazon EBS Volume Types](#).

- `standard` - Magnetic. Magnetic volumes must have a minimum size of 1 GiB and a maximum size of 1024 GiB.
- `io1` - Provisioned IOPS (SSD). PIOPS volumes must have a minimum size of 4 GiB and a maximum size of 16384 GiB.
- `gp2` - General Purpose (SSD). General purpose volumes must have a minimum size of 1 GiB and a maximum size of 16384 GiB.
- `st1` - Throughput Optimized hard disk drive (HDD). Throughput optimized HDD volumes must have a minimum size of 125 GiB and a maximum size of 16384 GiB.
- `sc1` - Cold HDD. Cold HDD volumes must have a minimum size of 125 GiB and a maximum size of 16384 GiB.

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

VolumeConfiguration

Describes an Amazon EBS volume configuration.

Contents

MountPoint

The volume mount point. For example `"/dev/sdh"`.

Type: String

Required: Yes

NumberOfDisks

The number of disks in the volume.

Type: Integer

Required: Yes

Size

The volume size.

Type: Integer

Required: Yes

Encrypted

Specifies whether an Amazon EBS volume is encrypted. For more information, see [Amazon EBS Encryption](#).

Type: Boolean

Required: No

Iops

For PIOPS volumes, the IOPS per disk.

Type: Integer

Required: No

RaidLevel

The volume [RAID level](#).

Type: Integer

Required: No

VolumeType

The volume type. For more information, see [Amazon EBS Volume Types](#).

- `standard` - Magnetic. Magnetic volumes must have a minimum size of 1 GiB and a maximum size of 1024 GiB.
- `io1` - Provisioned IOPS (SSD). PIOPS volumes must have a minimum size of 4 GiB and a maximum size of 16384 GiB.
- `gp2` - General Purpose (SSD). General purpose volumes must have a minimum size of 1 GiB and a maximum size of 16384 GiB.
- `st1` - Throughput Optimized hard disk drive (HDD). Throughput optimized HDD volumes must have a minimum size of 125 GiB and a maximum size of 16384 GiB.
- `sc1` - Cold HDD. Cold HDD volumes must have a minimum size of 125 GiB and a maximum size of 16384 GiB.

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

WeeklyAutoScalingSchedule

Describes a time-based instance's auto scaling schedule. The schedule consists of a set of key-value pairs.

- The key is the time period (a UTC hour) and must be an integer from 0 - 23.
- The value indicates whether the instance should be online or offline for the specified period, and must be set to "on" or "off"

The default setting for all time periods is off, so you use the following parameters primarily to specify the online periods. You don't have to explicitly specify offline periods unless you want to change an online period to an offline period.

The following example specifies that the instance should be online for four hours, from UTC 1200 - 1600. It will be off for the remainder of the day.

```
{ "12": "on", "13": "on", "14": "on", "15": "on" }
```

Contents

Friday

The schedule for Friday.

Type: String to string map

Required: No

Monday

The schedule for Monday.

Type: String to string map

Required: No

Saturday

The schedule for Saturday.

Type: String to string map

Required: No

Sunday

The schedule for Sunday.

Type: String to string map

Required: No

Thursday

The schedule for Thursday.

Type: String to string map

Required: No

Tuesday

The schedule for Tuesday.

Type: String to string map

Required: No

Wednesday

The schedule for Wednesday.

Type: String to string map

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

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [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

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

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