Table of Contents

Welcome ............................................................................................................................................. 1
Actions ................................................................................................................................................ 3
AssignInstance .................................................................................................................................. 5
  Request Syntax .......................................................................................................................... 5
  Request Parameters .................................................................................................................... 5
  Response Elements ...................................................................................................................... 5
  Errors ............................................................................................................................................. 5
  See Also ......................................................................................................................................... 6
AssignVolume ................................................................................................................................... 7
  Request Syntax .......................................................................................................................... 7
  Request Parameters .................................................................................................................... 7
  Response Elements ...................................................................................................................... 7
  Errors ............................................................................................................................................. 7
  See Also ......................................................................................................................................... 8
AssociateElasticIp ............................................................................................................................ 9
  Request Syntax .......................................................................................................................... 9
  Request Parameters .................................................................................................................... 9
  Response Elements ...................................................................................................................... 9
  Errors ............................................................................................................................................. 9
  See Also ......................................................................................................................................... 10
AttachElasticLoadBalancer ............................................................................................................. 11
  Request Syntax .......................................................................................................................... 11
  Request Parameters .................................................................................................................... 11
  Response Elements ...................................................................................................................... 11
  Errors ............................................................................................................................................. 11
  See Also ......................................................................................................................................... 12
CloneStack ...................................................................................................................................... 13
  Request Syntax .......................................................................................................................... 13
  Request Parameters .................................................................................................................... 13
  Response Syntax .......................................................................................................................... 18
  Response Elements ...................................................................................................................... 18
  Errors ............................................................................................................................................. 18
  See Also ......................................................................................................................................... 19
CreateApp ...................................................................................................................................... 20
  Request Syntax .......................................................................................................................... 20
  Request Parameters .................................................................................................................... 20
  Response Syntax .......................................................................................................................... 22
  Response Elements ...................................................................................................................... 22
  Errors ............................................................................................................................................. 22
  See Also ......................................................................................................................................... 23
CreateDeployment .......................................................................................................................... 24
  Request Syntax .......................................................................................................................... 24
  Request Parameters .................................................................................................................... 24
  Response Syntax .......................................................................................................................... 25
  Response Elements ...................................................................................................................... 25
  Errors ............................................................................................................................................. 25
  See Also ......................................................................................................................................... 26
CreateInstance ............................................................................................................................... 27
  Request Syntax .......................................................................................................................... 27
  Request Parameters .................................................................................................................... 27
  Response Syntax .......................................................................................................................... 31
  Response Elements ...................................................................................................................... 31
  Errors ............................................................................................................................................. 31
  See Also ......................................................................................................................................... 31
<table>
<thead>
<tr>
<th>Data Types</th>
<th>191</th>
</tr>
</thead>
<tbody>
<tr>
<td>AgentVersion</td>
<td>193</td>
</tr>
<tr>
<td>Contents</td>
<td>193</td>
</tr>
<tr>
<td>See Also</td>
<td></td>
</tr>
<tr>
<td>App</td>
<td>194</td>
</tr>
<tr>
<td>Contents</td>
<td>194</td>
</tr>
<tr>
<td>See Also</td>
<td>196</td>
</tr>
<tr>
<td>AutoScalingThresholds</td>
<td>197</td>
</tr>
<tr>
<td>Contents</td>
<td>197</td>
</tr>
<tr>
<td>See Also</td>
<td>198</td>
</tr>
<tr>
<td>BlockDeviceMapping</td>
<td>199</td>
</tr>
<tr>
<td>Contents</td>
<td>199</td>
</tr>
<tr>
<td>See Also</td>
<td>199</td>
</tr>
<tr>
<td>ChefConfiguration</td>
<td>200</td>
</tr>
<tr>
<td>Contents</td>
<td>200</td>
</tr>
<tr>
<td>See Also</td>
<td>200</td>
</tr>
<tr>
<td>CloudWatchLogsConfiguration</td>
<td>201</td>
</tr>
<tr>
<td>Contents</td>
<td>201</td>
</tr>
<tr>
<td>See Also</td>
<td>201</td>
</tr>
<tr>
<td>CloudWatchLogsLogStream</td>
<td>202</td>
</tr>
<tr>
<td>Contents</td>
<td>202</td>
</tr>
<tr>
<td>See Also</td>
<td>204</td>
</tr>
<tr>
<td>Command</td>
<td>205</td>
</tr>
<tr>
<td>Contents</td>
<td>205</td>
</tr>
<tr>
<td>See Also</td>
<td>206</td>
</tr>
<tr>
<td>DataSource</td>
<td>207</td>
</tr>
<tr>
<td>Contents</td>
<td>207</td>
</tr>
<tr>
<td>See Also</td>
<td>207</td>
</tr>
<tr>
<td>Deployment</td>
<td>208</td>
</tr>
<tr>
<td>Contents</td>
<td>208</td>
</tr>
<tr>
<td>See Also</td>
<td>209</td>
</tr>
<tr>
<td>DeploymentCommand</td>
<td>210</td>
</tr>
</tbody>
</table>

See Also ........................................................................................................................ 177
UpdateRdsDbInstance ............................................................................................................. 179
Request Syntax ................................................................. 179
Request Parameters ......................................................... 179
Response Elements ........................................................... 179
Errors .................................................................................. 179
See Also .............................................................................. 180
UpdateStack ........................................................................ 181
Request Syntax ................................................................. 181
Request Parameters ......................................................... 181
Response Elements ........................................................... 185
Errors .................................................................................. 185
See Also .............................................................................. 185
UpdateUserProfile ................................................................ 187
Request Syntax ................................................................. 187
Request Parameters ......................................................... 187
Response Elements ........................................................... 188
Errors .................................................................................. 188
See Also .............................................................................. 188
UpdateVolume ...................................................................... 189
Request Syntax ................................................................. 189
Request Parameters ......................................................... 189
Response Elements ........................................................... 189
Errors .................................................................................. 189
See Also .............................................................................. 189

API Version 2013-02-18
<table>
<thead>
<tr>
<th>Contents</th>
<th>210</th>
</tr>
</thead>
<tbody>
<tr>
<td>See Also</td>
<td>211</td>
</tr>
<tr>
<td>EbsBlockDevice</td>
<td>212</td>
</tr>
<tr>
<td>Contents</td>
<td>212</td>
</tr>
<tr>
<td>See Also</td>
<td>212</td>
</tr>
<tr>
<td>EcsCluster</td>
<td>214</td>
</tr>
<tr>
<td>Contents</td>
<td>214</td>
</tr>
<tr>
<td>See Also</td>
<td>214</td>
</tr>
<tr>
<td>ElasticIp</td>
<td>215</td>
</tr>
<tr>
<td>Contents</td>
<td>215</td>
</tr>
<tr>
<td>See Also</td>
<td>215</td>
</tr>
<tr>
<td>ElasticLoadBalancer</td>
<td>216</td>
</tr>
<tr>
<td>Contents</td>
<td>216</td>
</tr>
<tr>
<td>See Also</td>
<td>217</td>
</tr>
<tr>
<td>EnvironmentVariable</td>
<td>218</td>
</tr>
<tr>
<td>Contents</td>
<td>218</td>
</tr>
<tr>
<td>See Also</td>
<td>218</td>
</tr>
<tr>
<td>Instance</td>
<td>219</td>
</tr>
<tr>
<td>Contents</td>
<td>219</td>
</tr>
<tr>
<td>See Also</td>
<td>224</td>
</tr>
<tr>
<td>InstanceIdentity</td>
<td>225</td>
</tr>
<tr>
<td>Contents</td>
<td>225</td>
</tr>
<tr>
<td>See Also</td>
<td>225</td>
</tr>
<tr>
<td>InstancesCount</td>
<td>226</td>
</tr>
<tr>
<td>Contents</td>
<td>226</td>
</tr>
<tr>
<td>See Also</td>
<td>228</td>
</tr>
<tr>
<td>Layer</td>
<td>229</td>
</tr>
<tr>
<td>Contents</td>
<td>229</td>
</tr>
<tr>
<td>See Also</td>
<td>232</td>
</tr>
<tr>
<td>LifecycleEventConfiguration</td>
<td>233</td>
</tr>
<tr>
<td>Contents</td>
<td>233</td>
</tr>
<tr>
<td>See Also</td>
<td>233</td>
</tr>
<tr>
<td>LoadBasedAutoScalingConfiguration</td>
<td>234</td>
</tr>
<tr>
<td>Contents</td>
<td>234</td>
</tr>
<tr>
<td>See Also</td>
<td>234</td>
</tr>
<tr>
<td>OperatingSystem</td>
<td>235</td>
</tr>
<tr>
<td>Contents</td>
<td>235</td>
</tr>
<tr>
<td>See Also</td>
<td>236</td>
</tr>
<tr>
<td>OperatingSystemConfigurationManager</td>
<td>237</td>
</tr>
<tr>
<td>Contents</td>
<td>237</td>
</tr>
<tr>
<td>See Also</td>
<td>237</td>
</tr>
<tr>
<td>Permission</td>
<td>238</td>
</tr>
<tr>
<td>Contents</td>
<td>238</td>
</tr>
<tr>
<td>See Also</td>
<td>238</td>
</tr>
<tr>
<td>RaidArray</td>
<td>240</td>
</tr>
<tr>
<td>Contents</td>
<td>240</td>
</tr>
<tr>
<td>See Also</td>
<td>241</td>
</tr>
<tr>
<td>RdsDbInstance</td>
<td>242</td>
</tr>
<tr>
<td>Contents</td>
<td>242</td>
</tr>
<tr>
<td>See Also</td>
<td>243</td>
</tr>
<tr>
<td>Recipes</td>
<td>244</td>
</tr>
<tr>
<td>Contents</td>
<td>244</td>
</tr>
<tr>
<td>See Also</td>
<td>244</td>
</tr>
<tr>
<td>ReportedOs</td>
<td>246</td>
</tr>
<tr>
<td>Contents</td>
<td>246</td>
</tr>
<tr>
<td>See Also</td>
<td>246</td>
</tr>
<tr>
<td>SelfUserProfile</td>
<td>247</td>
</tr>
</tbody>
</table>
Welcome

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 overseeing the complete application lifecycle. For information about this product, go to the AWS OpsWorks details page.

SDKs and CLI

The most common way to use the AWS OpsWorks Stacks API is 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 2
- 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 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 (p. 37)`, `CloneStack (p. 13)`, or `UpdateStack (p. 181)` 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 February 7, 2018.
Actions

The following actions are supported:

- AssignInstance (p. 5)
- AssignVolume (p. 7)
- AssociateElasticIp (p. 9)
- AttachElasticLoadBalancer (p. 11)
- CloneStack (p. 13)
- CreateApp (p. 20)
- CreateDeployment (p. 24)
- CreateInstance (p. 27)
- CreateLayer (p. 32)
- CreateStack (p. 37)
- CreateUserProfile (p. 43)
- DeleteApp (p. 45)
- DeleteInstance (p. 47)
- DeleteLayer (p. 49)
- DeleteStack (p. 51)
- DeleteUserProfile (p. 53)
- DeregisterEcsCluster (p. 55)
- DeregisterElasticIp (p. 57)
- DeregisterInstance (p. 59)
- DeregisterRdsDbInstance (p. 61)
- DeregisterVolume (p. 63)
- DescribeAgentVersions (p. 65)
- DescribeApps (p. 67)
- DescribeCommands (p. 70)
- DescribeDeployments (p. 73)
- DescribeEcsClusters (p. 76)
- DescribeElasticIps (p. 79)
- DescribeElasticLoadBalancers (p. 81)
- DescribeInstances (p. 83)
- DescribeLayers (p. 86)
- DescribeLoadBasedAutoScaling (p. 89)
- DescribeMyUserProfile (p. 91)
- DescribeOperatingSystems (p. 92)
- DescribePermissions (p. 94)
- DescribeRaidArrays (p. 96)
- DescribeRdsDbInstances (p. 99)
- DescribeServiceErrors (p. 101)
- DescribeStackProvisioningParameters (p. 103)
- DescribeStacks (p. 105)
- DescribeStackSummary (p. 108)
• DescribeTimeBasedAutoScaling (p. 110)
• DescribeUserProfiles (p. 112)
• DescribeVolumes (p. 114)
• DetachElasticLoadBalancer (p. 117)
• DisassociateElasticIp (p. 119)
• GetHostnameSuggestion (p. 121)
• GrantAccess (p. 123)
• ListTags (p. 125)
• RebootInstance (p. 127)
• RegisterEcsCluster (p. 129)
• RegisterElasticIp (p. 131)
• RegisterInstance (p. 133)
• RegisterRdsDbInstance (p. 136)
• RegisterVolume (p. 138)
• SetLoadBasedAutoScaling (p. 140)
• SetPermission (p. 142)
• SetTimeBasedAutoScaling (p. 144)
• StartInstance (p. 146)
• StartStack (p. 148)
• StopInstance (p. 150)
• StopStack (p. 152)
• TagResource (p. 154)
• UnassignInstance (p. 156)
• UnassignVolume (p. 158)
• UntagResource (p. 160)
• UpdateApp (p. 162)
• UpdateElasticIp (p. 166)
• UpdateInstance (p. 168)
• UpdateLayer (p. 172)
• UpdateMyUserProfile (p. 177)
• UpdateRdsDbInstance (p. 179)
• UpdateStack (p. 181)
• UpdateUserProfile (p. 187)
• UpdateVolume (p. 189)
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**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**InstanceId (p. 5)**

- The instance ID.
  - Type: String
  - Required: Yes

**LayerIds (p. 5)**

- 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 (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 138). After you register the volume, you must call UpdateVolume (p. 189) 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 (p. 271).

The request accepts the following data in JSON format.

InstanceId (p. 7)

The instance ID.

Type: String

Required: No

VolumeId (p. 7)

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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 131). 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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

ElasticIp (p. 9)

  The Elastic IP address.

  Type: String

  Required: Yes

InstanceId (p. 9)

  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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 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 (p. 271).

The request accepts the following data in JSON format.

**ElasticLoadBalancerName (p. 11)**

The Elastic Load Balancing instance's name.

Type: String

Required: Yes

**LayerId (p. 11)**

The ID of the layer that the Elastic Load Balancing instance is to be 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 (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on 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 (p. 271).

The request accepts the following data in JSON format.

**AgentVersion (p. 13)**

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 then 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 (p. 65). 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 (p. 13)
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 (p. 13)
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 (p. 200) object
Required: No

CloneAppIds (p. 13)
A list of source stack app IDs to be included in the cloned stack.

Type: Array of strings
Required: No

ClonePermissions (p. 13)
Whether to clone the source stack's permissions.

Type: Boolean
Required: No

ConfigurationManager (p. 13)
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 (p. 258) object
Required: No

CustomCookbooksSource (p. 13)
Contains the information required to retrieve an app or cookbook from a repository. For more information, see Creating Apps or Custom Recipes and Cookbooks.
Type: **Source (p. 251)** object

Required: No

**CustomJson (p. 13)**

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 on custom JSON, see Use Custom JSON to Modify the Stack Configuration Attributes

Type: String

Required: No

**DefaultAvailabilityZone (p. 13)**

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 (p. 13)**

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 (p. 13)**

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 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 16.04 LTS, Ubuntu 14.04 LTS, or Ubuntu 12.04 LTS.
- CentOS Linux 7
- Red Hat Enterprise Linux 7
- A custom AMI: Custom. You specify the custom AMI you want to use when you create instances. For more information on how to use custom AMIs with OpsWorks, see Using Custom AMIs.

The default option is the parent stack's operating system. For more information on the 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
DefaultRootDeviceType (p. 13)
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

DefaultSshKeyName (p. 13)
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

DefaultSubnetId (p. 13)
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

HostnameTheme (p. 13)
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
- 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
Request Parameters

**Name (p. 13)**

The cloned stack name.

Type: String

**Region (p. 13)**

The cloned stack AWS region, such as "ap-northeast-2". For more information about AWS regions, see Regions and Endpoints.

Type: String

**ServiceRoleArn (p. 13)**

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` (p. 94). 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

**SourceStackId (p. 13)**

The source stack ID.

Type: String

**UseCustomCookbooks (p. 13)**

Whether to use custom cookbooks.

Type: Boolean

**UseOpsworksSecurityGroups (p. 13)**

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 Amazon Elastic Compute Cloud (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 (p. 13)

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 on how to use AWS OpsWorks Stacks with a VPC, see Running a Stack in a VPC. For more information on 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 (p. 18)

The cloned stack ID.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).
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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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**

```json
{
    "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 (p. 271).

The request accepts the following data in JSON format.

**AppSource (p. 20)**

A Source object that specifies the app repository.
Type: **Source (p. 251)** object

Required: No

**Attributes (p. 20)**

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 (p. 20)**

The app's data source.

Type: Array of **DataSource (p. 207)** objects

Required: No

**Description (p. 20)**

A description of the app.

Type: String

Required: No

**Domains (p. 20)**

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 (p. 20)**

Whether to enable SSL for the app.

Type: Boolean

Required: No

**Environment (p. 20)**

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 10 KB (10240 Bytes). 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 10KB)."

**Note**

This parameter is supported only by Chef 11.10 stacks. If you have specified one or more environment variables, you cannot modify the stack's Chef version.

Type: Array of **EnvironmentVariable (p. 218)** objects

Required: No
Name (p. 20)
The app name.
Type: String
Required: Yes

Shortname (p. 20)
The app's short name.
Type: String
Required: No

SslConfiguration (p. 20)
An SslConfiguration object with the SSL configuration.
Type: SslConfiguration (p. 253) object
Required: No

StackId (p. 20)
The stack ID.
Type: String
Required: Yes

Type (p. 20)
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

```json
{
  "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 (p. 22)
The app ID.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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

```json
{
    "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 (p. 271).

The request accepts the following data in JSON format.

**AppId (p. 24)**

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

Type: String

Required: No

**Command (p. 24)**

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

Type: DeploymentCommand (p. 210) object

Required: Yes

**Comment (p. 24)**

A user-defined comment.

Type: String

Required: No
CustomJson (p. 24)

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 on custom JSON, see Use Custom JSON to Modify the Stack Configuration Attributes.

Type: String
Required: No

InstanceIds (p. 24)

The instance IDs for the deployment targets.

Type: Array of strings
Required: No

LayerIds (p. 24)

The layer IDs for the deployment targets.

Type: Array of strings
Required: No

StackId (p. 24)

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 (p. 25)

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 (p. 273).
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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
CreateInstance

Create 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 (p. 271).

The request accepts the following data in JSON format.

AgentVersion (p. 27)

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 then automatically 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 (p. 65)`. `AgentVersion` cannot be set to Chef 12.2.

Type: String
Required: No

**AmiId (p. 27)**

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 (p. 27)**

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 (p. 27)**

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 (p. 27)**

The instance Availability Zone. For more information, see Regions and Endpoints.

Type: String
Required: No

**BlockDeviceMappings (p. 27)**

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 (p. 199)` objects
Required: No

**EbsOptimized (p. 27)**

Whether to create an Amazon EBS-optimized instance.

Type: Boolean
AWS OpsWorks API Reference
Request Parameters

Required: No

Hostname (p. 27)

The instance host name.

Type: String

Required: No

InstallUpdatesOnBoot (p. 27)

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 (p. 24) 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 (p. 27)

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 (p. 27)

An array that contains the instance's layer IDs.

Type: Array of strings

Required: Yes

Os (p. 27)

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 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 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.

For more information on 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 (p. 27) action's AmiId 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 on the supported operating systems, see Operating Systems For more information on how to use custom AMIs with AWS OpsWorks Stacks, see Using Custom AMIs.

Type: String
Required: No

**RootDeviceType (p. 27)**

The instance root device type. For more information, see Storage for the Root Device.

Type: String
Valid Values: ebs | instance-store
Required: No

**SshKeyName (p. 27)**

The instance's Amazon EC2 key-pair name.

Type: String
Required: No

**StackId (p. 27)**

The stack ID.

Type: String
Required: Yes

**SubnetId (p. 27)**

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 (p. 27)**

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 (p. 27)**

The instance's virtualization type, paravirtual or hvm.

Type: String
Required: No

Response Syntax

```json
{
    "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 (p. 31)**

The instance ID.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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

```json
{
    "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"
    }
}
```

API Version 2013-02-18
"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 (p. 271).

The request accepts the following data in JSON format.

### Attributes (p. 32)

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


Required: No

### AutoAssignElasticips (p. 32)

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 (p. 32)

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 (p. 32)

Specifies CloudWatch Logs configuration options for the layer. For more information, see CloudWatchLogsLogStream (p. 202).
Request Parameters

**Type**: CloudWatchLogsConfiguration (p. 201) object

**Required**: No

**CustomInstanceProfileArn** (p. 32)

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** (p. 32)

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** (p. 32)

A LayerCustomRecipes object that specifies the layer custom recipes.

**Type**: Recipes (p. 244) object

**Required**: No

**CustomSecurityGroupIds** (p. 32)

An array containing the layer custom security group IDs.

**Type**: Array of strings

**Required**: No

**EnableAutoHealing** (p. 32)

Whether to disable auto healing for the layer.

**Type**: Boolean

**Required**: No

**InstallUpdatesOnBoot** (p. 32)

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 (p. 24) 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** (p. 32)

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.
**Request Parameters**

**Type:** LifecycleEventConfiguration (p. 233) object

Required: No

**Name (p. 32)**

The layer name, which is used by the console.

Type: String

Required: Yes

**Packages (p. 32)**

An array of Package objects that describes the layer packages.

Type: Array of strings

Required: No

**Shortname (p. 32)**

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 200 characters, which are limited to the alphanumeric characters, '-', '_', and '.'.

The built-in layers' short names are defined by AWS OpsWorks Stacks. For more information, see the Layer Reference.

Type: String

Required: Yes

**StackId (p. 32)**

The layer stack ID.

Type: String

Required: Yes

**Type (p. 32)**

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 (p. 32)**

Whether to use Amazon EBS-optimized instances.

Type: Boolean

Required: No

**VolumeConfigurations (p. 32)**

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

Type: Array of VolumeConfiguration (p. 267) objects
Response Syntax

```json
{
    "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 (p. 36)**

The layer ID.

Type: String

Errors

For information about the errors that are common to all actions, see *Common Errors (p. 273).*

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

**Request Syntax**

```json
{
    "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 (p. 271).

The request accepts the following data in JSON format.

**AgentVersion (p. 37)**

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 then automatically 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 (p. 65). 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 (p. 37)
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 (p. 37)
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 (p. 200) object
Required: No

ConfigurationManager (p. 37)
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 11.4.

Type: StackConfigurationManager (p. 258) object
Required: No

CustomCookbooksSource (p. 37)
Contains the information required to retrieve an app or cookbook from a repository. For more information, see Creating Apps or Custom Recipes and Cookbooks.

Type: Source (p. 251) object
Required: No

CustomJson (p. 37)
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 on custom JSON, see Use Custom JSON to Modify the Stack Configuration Attributes.
Type: String
Required: No

**DefaultAvailabilityZone (p. 37)**

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 (p. 37)**

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 (p. 37)**

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 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 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. For more information on the supported operating systems, see [AWS OpsWorks Stacks Operating Systems](#).

Type: String
Required: No

**DefaultRootDeviceType (p. 37)**

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 (p. 37)**

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 (p. 37)**

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 (p. 37)**

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
- 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 (p. 37)**

The stack name.

Type: String
Required: Yes

**Region (p. 37)**

The stack's AWS region, such as "ap-south-1". For more information about Amazon regions, see Regions and Endpoints.
Type: String
Required: Yes

**ServiceRoleArn (p. 37)**

The stack's 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. For more information about IAM ARNs, see Using Identifiers.

Type: String
Required: Yes

**UseCustomCookbooks (p. 37)**

Whether the stack uses custom cookbooks.

Type: Boolean
Required: No

**UseOpsworksSecurityGroups (p. 37)**

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 (p. 37)**

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 on how to use AWS OpsWorks Stacks with a VPC, see Running a Stack in a VPC. For more information on default VPC and EC2-Classic, see Supported Platforms.

Type: String

Required: No

**Response Syntax**

```json
{
  "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 (p. 42)**

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 (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**AllowSelfManagement (p. 43)**

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 (p. 43)**

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

Type: String

Required: Yes

**SshPublicKey (p. 43)**

The user's public SSH key.

Type: String

Required: No

**SshUsername (p. 43)**

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 Syntax

```json
{
    "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 (p. 44)**

The user's IAM ARN.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**AppId (p. 45)**

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 (p. 273).

**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
See Also

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**DeleteElasticIp (p. 47)**

Whether to delete the instance Elastic IP address.

Type: Boolean

Required: No

**DeleteVolumes (p. 47)**

Whether to delete the instance's Amazon EBS volumes.

Type: Boolean

Required: No

**InstanceId (p. 47)**

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 (p. 273).
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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**LayerId (p. 49)**

- 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 (p. 273).

- **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:
See Also

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

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

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters (p. 271)](https://docs.aws.amazon.com/opsworks/latest/api/).

The request accepts the following data in JSON format.

**StackId (p. 51)**

- 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 (p. 273)](https://docs.aws.amazon.com/opsworks/latest/api/).

- **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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
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 on user permissions, see [Managing User Permissions](https://docs.aws.amazon.com/IAM/latest/userguide/what-is-user-permissions.html).

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](https://docs.aws.amazon.com/AWS SDK for .NET/latest/ApiReference/API_CommonParameters.html).

The request accepts the following data in JSON format.

- **IamUserArn** *(p. 53)*
  
  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](https://docs.aws.amazon.com/AWS SDK for .NET/latest/ApiReference/API_CommonErrors.html).

- **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](https://docs.aws.amazon.com/cli/latest/reference/index.html)
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
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 http://docs.aws.amazon.com/opsworks/latest/userguide/opsworks-security-users.html.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

EcsClusterArn (p. 55)

- The cluster'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 (p. 273).

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:
See Also

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

Deregisters a specified Elastic IP address. The address 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**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**ElasticIp (p. 57)**

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 (p. 273).

**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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
DeregisterInstance

Deregister a registered Amazon EC2 or on-premises instance. This action removes the instance from the stack and returns it to your control. This action cannot be used 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 on user permissions, see Managing User Permissions.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**InstanceId (p. 59)**

- 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 (p. 273).

**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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
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**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**RdsDbInstanceArn (p. 61)**

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 (p. 273).

**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
See Also

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**VolumeId (p. 63)**

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 (p. 273).

**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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
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 (p. 271).

The request accepts the following data in JSON format.

**ConfigurationManager (p. 65)**

The configuration manager.

Type: StackConfigurationManager (p. 258) object

Required: No

**StackId (p. 65)**

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 (p. 65)**

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 (p. 273)](#).

**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](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)
**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 on user permissions, see Managing User Permissions.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**AppIds (p. 67)**

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 (p. 67)**

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**

```json
{
    "Apps": [
        {
            "AppId": "string",
            "AppSource": {
                "Password": "string",
                "Revision": "string",
                "SshKey": "string",
                "Type": "string",
                "Url": "string",
                "Username": "string"
            }
        }
    ]
}
```

API Version 2013-02-18
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 (p. 67)**

An array of App objects that describe the specified apps.

Type: Array of App (p. 194) objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on 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 (p. 271).

The request accepts the following data in JSON format.

**CommandIds (p. 70)**

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 (p. 70)**

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 (p. 70)**

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": [ ...
```

API Version 2013-02-18
70
AWS OpsWorks API Reference
Response Elements

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 (p. 70)

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

Type: Array of Command (p. 205) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
AWS SDK for Ruby V2
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 on 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 (p. 271).

The request accepts the following data in JSON format.

**AppId (p. 73)**

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 (p. 73)**

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 (p. 73)**

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": [
```
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 (p. 73)**

An array of Deployment objects that describe the deployments.

Type: Array of Deployment (p. 208) objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
See Also

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

Describe 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 on user permissions, see Managing User Permissions.

This call accepts only one resource-identifying parameter.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**EcsClusterArns (p. 76)**

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

Type: Array of strings

Required: No

**MaxResults (p. 76)**

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 (p. 76)**

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 (p. 76)

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

Type: String
Required: No

Response Syntax

```json
{
  "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 (p. 77)

A list of EcsCluster objects containing the cluster descriptions.

Type: Array of EcsCluster (p. 214) objects

NextToken (p. 77)

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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

InstanceId (p. 79)

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 (p. 79)

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 (p. 79)

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

```json
{
}
```
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 (p. 79)**

An ElasticIps object that describes the specified Elastic IP addresses.

Type: Array of ElasticIp (p. 215) objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**LayerIds (p. 81)**
A list of layer IDs. The action describes the Elastic Load Balancing instances for the specified layers.

Type: Array of strings
Required: No

**StackId (p. 81)**
A stack ID. The action describes the stack's Elastic Load Balancing instances.

Type: String
Required: No

**Response Syntax**

```json
{
  "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 (p. 81)**

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

Type: Array of ElasticLoadBalancer (p. 216) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on 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 (p. 271).

The request accepts the following data in JSON format.

**InstanceIds (p. 83)**

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 (p. 83)**

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

Type: String

Required: No

**StackId (p. 83)**

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 (p. 83)**

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 (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

- **LayerIds (p. 86)**
  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 (p. 86)**
  The stack ID.
  
  Type: String
  
  Required: No

**Response Syntax**

```json
{
    "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 (p. 86)**

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

Type: Array of `Layer` (p. 229) objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see **Managing User Permissions.**

### Request Syntax

```json
{
    "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 (p. 89)**

- An array of layer IDs.
- Type: Array of strings
- Required: Yes

### Response Syntax

```json
{
    "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 (p. 89)**

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

Type: Array of `LoadBasedAutoScalingConfiguration (p. 234)` objects

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 273)](#).

**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](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)
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 on user permissions, see Managing User Permissions.

### Response Syntax

```json
{
   "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 (p. 91)**

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

Type: `SelfUserProfile (p. 247)` object

### Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

### See Also

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

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

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

Response Syntax

```json
{
  "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 (p. 92)

Type: Array of OperatingSystem (p. 235) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

See Also

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

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**IamUserArn (p. 94)**

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 (p. 94)**

The stack ID.

Type: String

Required: No

Response Syntax

```json
{
    "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 (p. 94)**

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 (p. 238) objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on 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 (p. 271).

The request accepts the following data in JSON format.

**InstanceId (p. 96)**

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 (p. 96)**

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 (p. 96)**

The stack ID.

Type: String
Required: No

**Response Syntax**

```
{
  "RaidArrays": [
    
  ]
```

API Version 2013-02-18
96
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 (p. 96)**

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

Type: Array of `RaidArray (p. 240)` objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3

API Version 2013-02-18
See Also

- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see [Managing User Permissions](#).

This call accepts only one resource-identifying parameter.

**Request Syntax**

```json
{
  "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 (p. 99)**

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

*Type: Array of strings*

*Required: No*

**StackId (p. 99)**

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

*Type: String*

*Required: Yes*

**Response Syntax**

```json
{
  "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 (p. 99)**

An array of `RdsDbInstance` objects that describe the instances.

Type: Array of `RdsDbInstance` objects (p. 242)

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

This call accepts only one resource-identifying parameter.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**InstanceId (p. 101)**

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

Type: String

Required: No

**ServiceErrorIds (p. 101)**

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 (p. 101)**

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**

```json
{
    "ServiceErrors": [ {
```

API Version 2013-02-18
101
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 (p. 101)**

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

Type: Array of `ServiceError (p. 248)` objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**StackId (p. 103)**

The stack ID

- Type: String
- Required: Yes

**Response Syntax**

```json
{
   "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 (p. 103)**

The AWS OpsWorks Stacks agent installer's URL.

- Type: String

**Parameters (p. 103)**

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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on 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 (p. 271).

The request accepts the following data in JSON format.

**StackIds (p. 105)**

An array of stack IDs that specify the stacks to be described. If you omit this parameter, DescribeStacks returns a description of every stack.

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"
      }
    }
  ]
```

API Version 2013-02-18

105
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 (p. 105)

An array of Stack objects that describe the stacks.

Type: Array of Stack (p. 254) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
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 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 (p. 271).

The request accepts the following data in JSON format.

**StackId (p. 108)**

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
    }
```

API Version 2013-02-18
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 (p. 108)

A StackSummary object that contains the results.

Type: StackSummary (p. 259) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on 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 (p. 271).

The request accepts the following data in JSON format.

**InstanceIds (p. 110)**

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": { 
      
```
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 (p. 110)**

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

Type: Array of TimeBasedAutoScalingConfiguration (p. 262) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**IamUserArns (p. 112)**

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

Type: Array of strings

Required: No

**Response Syntax**

```json
{
    "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 (p. 112)**

A Users object that describes the specified users.

Type: Array of UserProfile (p. 263) objects
Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on user permissions, see Managing User Permissions.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

InstanceId (p. 114)

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

Type: String

Required: No

RaidArrayId (p. 114)

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 (p. 114)

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

Type: String

Required: No

VolumeIds (p. 114)

Am 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
Response Syntax

```json
{
  "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 (p. 115)

An array of volume IDs.

Type: Array of Volume (p. 264) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
## 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

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

### Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**ElasticLoadBalancerName (p. 117)**

The Elastic Load Balancing instance's name.

Type: String

Required: Yes

**LayerId (p. 117)**

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 (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 271).

The request accepts the following data in JSON format.

**ElasticIp (p. 119)**

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 (p. 273).

**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:
See Also

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

```json
{
   "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 (p. 121)**

- The layer ID.
- Type: String
- Required: Yes

**Response Syntax**

```json
{
   "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 (p. 121)**

- The generated host name.
- Type: String

**LayerId (p. 121)**

- The layer ID.
- Type: String
Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 271).

The request accepts the following data in JSON format.

InstanceId (p. 123)

The instance's AWS OpsWorks Stacks ID.

Type: String

Required: Yes

ValidForInMinutes (p. 123)

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, he or she automatically will be 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 (p. 123)**

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 (p. 261)` object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 273).

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

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

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**MaxResults (p. 125)**

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

- Type: Integer
- Required: No

**NextToken (p. 125)**

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

- Type: String
- Required: No

**ResourceArn (p. 125)**

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

- Type: String
- Required: Yes

**Response Syntax**

```json
{
    "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 (p. 125)**

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 (p. 125)**

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 (p. 273).

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

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**InstanceId (p. 127)**

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 (p. 273).

**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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
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 (p. 271).

The request accepts the following data in JSON format.

**EcsClusterArn (p. 129)**

The cluster's ARN.

Type: String

Required: Yes

**StackId (p. 129)**

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 (p. 129)**

The cluster's ARN.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 57). 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**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**ElasticIp (p. 131)**

The Elastic IP address.

- Type: String
- Required: Yes

**StackId (p. 131)**

The stack ID.

- Type: String
- Required: Yes

**Response Syntax**

```json
{
    "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 (p. 131)**

The Elastic IP address.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 27) 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**

```json
{
  "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 (p. 271).

The request accepts the following data in JSON format.

**Hostname (p. 133)**

The instance's hostname.

Type: String

Required: No

**InstanceIdentity (p. 133)**

An InstanceIdentity object that contains the instance's identity.

Type: InstanceIdentity (p. 225) object

Required: No
PrivateIp (p. 133)
The instance's private IP address.
Type: String
Required: No

PublicIp (p. 133)
The instance's public IP address.
Type: String
Required: No

RsaPublicKey (p. 133)
The instance's public RSA key. This key is used to encrypt communication between the instance and the service.
Type: String
Required: No

RsaPublicKeyFingerprint (p. 133)
The instance's public RSA key fingerprint.
Type: String
Required: No

StackId (p. 133)
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 (p. 134)
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 (p. 273).

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

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**DbPassword (p. 136)**

The database password.

- Type: String
- Required: Yes

**DbUser (p. 136)**

The database's master user name.

- Type: String
- Required: Yes

**RdsDbInstanceArn (p. 136)**

The Amazon RDS instance's ARN.

- Type: String
- Required: Yes

**StackId (p. 136)**

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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 63). 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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

Ec2VolumeId (p. 138)

The Amazon EBS volume ID.

Type: String
Required: No

StackId (p. 138)

The stack ID.

Type: String
Required: Yes

Response Syntax

```json
{
    "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 (p. 138)

The volume ID.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 273).

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

```json
{
    "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 (p. 271).

The request accepts the following data in JSON format.

**DownScaling (p. 140)**

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 (p. 197) object

Required: No

**Enable (p. 140)**

Enables load-based auto scaling for the layer.
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 (p. 273).

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

```json
{
  "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 (p. 271).

The request accepts the following data in JSON format.

AllowSsh (p. 142)

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

Type: Boolean

Required: No

AllowSudo (p. 142)

The user is allowed to use sudo to elevate privileges.

Type: Boolean

Required: No

IamUserArn (p. 142)

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

Type: String

Required: Yes

Level (p. 142)

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 on the permissions associated with these levels, see Managing User Permissions.

Type: String
Required: No

StackId (p. 142)
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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 271).

The request accepts the following data in JSON format.

**AutoScalingSchedule (p. 144)**

An AutoScalingSchedule with the instance schedule.

Type: WeeklyAutoScalingSchedule (p. 269) object

Required: No

**InstanceId (p. 144)**

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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 271).

The request accepts the following data in JSON format.

InstanceId (p. 146)

  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 (p. 273).

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
See Also

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

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**StackId (p. 148)**

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 (p. 273).

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 271).

The request accepts the following data in JSON format.

Force (p. 150)

Type: Boolean

Required: No

InstanceId (p. 150)

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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 (p. 152)**

- 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](#)
See Also

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**ResourceArn (p. 154)**

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

- Type: String
- Required: Yes

**Tags (p. 154)**

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 (p. 273).

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

Unassigns a registered instance from all of its layers. 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 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 (p. 271).

The request accepts the following data in JSON format.

**InstanceId** (p. 156)

  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 (p. 273).

**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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
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 (p. 271).

The request accepts the following data in JSON format.

**VolumeId (p. 158)**

- 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 (p. 273).

- **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:
See Also

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

Removes tags from a specified stack or layer.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**ResourceArn (p. 160)**

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

Type: String

Required: Yes

**TagKeys (p. 160)**

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 (p. 273).

**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:
See Also

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

```json
{
    "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 (p. 271).

The request accepts the following data in JSON format.

**AppId (p. 162)**

The app ID.
Request Parameters

Type: String
Required: Yes

**AppSource (p. 162)**

A Source object that specifies the app repository.

Type: Source (p. 251) object

Required: No

**Attributes (p. 162)**

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 (p. 162)**

The app's data sources.

Type: Array of DataSource (p. 207) objects

Required: No

**Description (p. 162)**

A description of the app.

Type: String

Required: No

**Domains (p. 162)**

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 (p. 162)**

Whether SSL is enabled for the app.

Type: Boolean

Required: No

**Environment (p. 162)**

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 10 KB (10240 Bytes). 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 10KB)."
Note
This parameter is supported only by Chef 11.10 stacks. If you have specified one or more environment variables, you cannot modify the stack's Chef version.

Type: Array of EnvironmentVariable (p. 218) objects
Required: No

Name (p. 162)
The app name.
Type: String
Required: No

SslConfiguration (p. 162)
An SslConfiguration object with the SSL configuration.
Type: SslConfiguration (p. 253) object
Required: No

Type (p. 162)
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 (p. 273).

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
See Also

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

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**ElasticIp (p. 166)**

The address.

Type: String

Required: Yes

**Name (p. 166)**

The new 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 (p. 273).

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

```json
{
    "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 (p. 271).

The request accepts the following data in JSON format.

**AgentVersion (p. 168)**

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 then automatically 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 (p. 65).

**AgentVersion** cannot be set to Chef 12.2.

Type: String

Required: No

**AmiId (p. 168)**

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 (p. 168)**

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 (p. 168)**

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 (p. 168)**

This property cannot be updated.

Type: Boolean

Required: No

**Hostname (p. 168)**

The instance host name.

Type: String

Required: No

**InstallUpdatesOnBoot (p. 168)**

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 (p. 24) 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 (p. 168)**

The instance ID.

Type: String

Required: Yes

**InstanceType (p. 168)**

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.

**LayerIds (p. 168)**

The instance's layer IDs.

**Type:** Array of strings

**Required:** No

**Os (p. 168)**

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 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 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.

For more information on 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 AmiId parameter to specify the custom AMI that you want to use. For more information on the supported operating systems, see Operating Systems. For more information on how to use custom AMIs with 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 (p. 168)**

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 (p. 273).

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

```json
{
    "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"
        }
    ]
}
```

API Version 2013-02-18
172
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

Attributes (p. 172)

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

Type: String to string map


Required: No

AutoAssignElasticIps (p. 172)

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 (p. 172)

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 (p. 172)

Specifies CloudWatch Logs configuration options for the layer. For more information, see CloudWatchLogsLogStream (p. 202).

Type: CloudWatchLogsConfiguration (p. 201) object

Required: No

CustomInstanceProfileArn (p. 172)

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 (p. 172)**
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 (p. 172)**
A LayerCustomRecipes object that specifies the layer's custom recipes.

Type: Recipes (p. 244) object
Required: No
**CustomSecurityGroupIds (p. 172)**
An array containing the layer's custom security group IDs.

Type: Array of strings
Required: No
**EnableAutoHealing (p. 172)**
Whether to disable auto healing for the layer.

Type: Boolean
Required: No
**InstallUpdatesOnBoot (p. 172)**
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 (p. 24) 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 (p. 172)**
The layer ID.

Type: String
Required: Yes
**LifecycleEventConfiguration (p. 172)**

Type: LifecycleEventConfiguration (p. 233) object
Required: No
Name (p. 172)

The layer name, which is used by the console.

Type: String

Required: No

Packages (p. 172)

An array of Package objects that describe the layer's packages.

Type: Array of strings

Required: No

Shortname (p. 172)

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 200 characters and must be in the following format: /A[a-z0-9\-_\.]+/Z/.

The built-in layers' short names are defined by AWS OpsWorks Stacks. For more information, see the Layer Reference

Type: String

Required: No

UseEbsOptimizedInstances (p. 172)

Whether to use Amazon EBS-optimized instances.

Type: Boolean

Required: No

VolumeConfigurations (p. 172)

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

Type: Array of VolumeConfiguration (p. 267) 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 (p. 273).

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
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 on 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 (p. 271).

The request accepts the following data in JSON format.

SshPublicKey (p. 177)

- 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 (p. 273).

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

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**DbPassword (p. 179)**

The database password.

- Type: String
- Required: No

**DbUser (p. 179)**

The master user name.

- Type: String
- Required: No

**RdsDbInstanceArn (p. 179)**

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 (p. 273).

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

```json
{
    "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 (p. 271).

The request accepts the following data in JSON format.

**AgentVersion (p. 181)**

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 then 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` (p. 65). `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 (p. 181)

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 (p. 181)

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` (p. 200) object

Required: No

### ConfigurationManager (p. 181)

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 11.4.

Type: `StackConfigurationManager` (p. 258) object

Required: No

### CustomCookbooksSource (p. 181)

Contains the information required to retrieve an app or cookbook from a repository. For more information, see Creating Apps or Custom Recipes and Cookbooks.

Type: `Source` (p. 251) object

Required: No

### CustomJson (p. 181)

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 on custom JSON, see Use Custom JSON to Modify the Stack Configuration Attributes.

Type: String
Required: No

**DefaultAvailabilityZone (p. 181)**

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 (p. 37).

Type: String

Required: No

**DefaultInstanceProfileArn (p. 181)**

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 (p. 181)**

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 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 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 on how to use custom AMIs with OpsWorks, see Using Custom AMIs.

The default option is the stack's current operating system. For more information on the supported operating systems, see AWS OpsWorks Stacks Operating Systems.

Type: String

Required: No

**DefaultRootDeviceType (p. 181)**

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 (p. 181)**

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 (p. 181)**

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 (p. 181)**

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
- 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 (p. 181)**

The stack's new name.

Type: String

Required: No

**ServiceRoleArn (p. 181)**

Do not use this parameter. You cannot update a stack's service role.

Type: String

Required: No

**StackId (p. 181)**

The stack ID.
UseCustomCookbooks (p. 181)

Whether the stack uses custom cookbooks.
Type: Boolean
Required: No

UseOpsworksSecurityGroups (p. 181)

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 (p. 273).

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:
See Also

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
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 on user permissions, see *Managing User Permissions*.

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see *Common Parameters* (p. 271).

The request accepts the following data in JSON format.

**AllowSelfManagement (p. 187)**

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 (p. 187)**

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

- **Type**: String
- **Required**: Yes

**SshPublicKey (p. 187)**

The user’s new SSH public key.

- **Type**: String
- **Required**: No

**SshUsername (p. 187)**

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 (p. 273).

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

```json
{
  "MountPoint": "string",
  "Name": "string",
  "VolumeId": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 271).

The request accepts the following data in JSON format.

**MountPoint (p. 189)**

The new mount point.

Type: String

Required: No

**Name (p. 189)**

The new name.

Type: String

Required: No

**VolumeId (p. 189)**

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 (p. 273).
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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
Data Types

The 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` (p. 193)
- `App` (p. 194)
- `AutoScalingThresholds` (p. 197)
- `BlockDeviceMapping` (p. 199)
- `ChefConfiguration` (p. 200)
- `CloudWatchLogsConfiguration` (p. 201)
- `CloudWatchLogsLogStream` (p. 202)
- `Command` (p. 205)
- `DataSource` (p. 207)
- `Deployment` (p. 208)
- `DeploymentCommand` (p. 210)
- `EbsBlockDevice` (p. 212)
- `EcsCluster` (p. 214)
- `ElasticIp` (p. 215)
- `ElasticLoadBalancer` (p. 216)
- `EnvironmentVariable` (p. 218)
- `Instance` (p. 219)
- `InstanceIdentity` (p. 225)
- `InstancesCount` (p. 226)
- `Layer` (p. 229)
- `LifecycleEventConfiguration` (p. 233)
- `LoadBasedAutoScalingConfiguration` (p. 234)
- `OperatingSystem` (p. 235)
- `OperatingSystemConfigurationManager` (p. 237)
- `Permission` (p. 238)
- `RaidArray` (p. 240)
- `RdsDbInstance` (p. 242)
- `Recipes` (p. 244)
- `ReportedOs` (p. 246)
- `SelfUserProfile` (p. 247)
- `ServiceError` (p. 248)
- `ShutdownEventConfiguration` (p. 250)
- `Source` (p. 251)
- `SslConfiguration` (p. 253)
- `Stack` (p. 254)
• StackConfigurationManager (p. 258)
• StackSummary (p. 259)
• TemporaryCredential (p. 261)
• TimeBasedAutoScalingConfiguration (p. 262)
• UserProfile (p. 263)
• Volume (p. 264)
• VolumeConfiguration (p. 267)
• WeeklyAutoScalingSchedule (p. 269)
AgentVersion

Describes an agent version.

Contents

ConfigurationManager

The configuration manager.

Type: StackConfigurationManager (p. 258) 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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](p. 251) 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](p. 207) 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 10 KB (10240 Bytes). 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 10KB)" message.

Type: Array of EnvironmentVariable (p. 218) 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 (p. 253) 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 (p. 212) 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 (p. 202) objects

Required: No

See Also

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

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

Describes the Amazon 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 | big5kscs | 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.
See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
• AWS SDK for Java
• AWS SDK for Ruby V2
**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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 (p. 210) 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
AWS OpsWorks API Reference
DeploymentCommand

DeploymentCommand

Used to specify a stack or deployment command.

Contents

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 desired Amazon Linux version for instances whose OS you want to upgrade, such as Amazon Linux 2016.09. 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 2016.09, set Args to the following.

{ "upgrade_os_to" : ["Amazon Linux 2016.09"], "allow_reboot" : ["true"] }

Type: String to array of strings map

Required: No

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 phpprep::appsetup, set Args to {"recipes": ["phpprep::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

**See Also**

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

• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V2
**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++
See Also

- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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.
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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

Ec2InstanceId

A list of the EC2 instances that the Elastic Load Balancing instance is managing traffic for.

Type: Array of strings

Required: No

ElasticLoadBalancerName

The Elastic Load Balancing instance's name.

Type: String

Required: No

LayerId

The ID of the layer that the instance is attached to.

Type: String

Required: No

Region

The instance's AWS region.

Type: String

Required: No

StackId

The ID of the stack that the instance is associated with.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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

**Secure**

(Optional) Whether the variable's value will be returned by the DescribeApps (p. 67) action. To conceal an environment variable's value, set Secure to true. DescribeApps then returns *****FILTERED***** instead of the actual value. The default value for Secure is false.

Type: Boolean

Required: No

**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

**See Also**

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

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

Describes an 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

AmiId

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

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 (p. 199) 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.
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 then update your instances manually by using
**CreateDeployment (p. 24)** 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 (p. 101)`.
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 (p. 246)** 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 Go
  • AWS SDK for Java
  • AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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**

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
Layer

Describes a layer.

Contents

Arn

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


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 (p. 201) object

Required: No

CreatedAt

Date when the layer was created.
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 (p. 244) 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. 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.

Type: Recipes (p. 244) 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
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 (p. 24) 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 (p. 233) object
Required: No

Name

The layer name.
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
LifecycleEventConfiguration

Specifies the lifecycle event configuration

Contents

Shutdown

A ShutdownEventConfiguration object that specifies the Shutdown event configuration.

Type: ShutdownEventConfiguration (p. 250) object

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 (p. 197) 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 (p. 197) object

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 (p. 237) objects

Required: No

Id

The ID of a supported operating system, such as Amazon Linux 2017.09.

Type: String

Required: No

Name

The name of the operating system, such as Amazon Linux 2017.09.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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:
See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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.
**See Also**

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

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

Describes an Amazon RDS instance.

Contents

Address
The instance's address.
Type: String
Required: No

DbInstanceIdentifier
The DB 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
• AWS SDK for Java
• AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
See Also

- AWS SDK for Ruby V2
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 will wait 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 http://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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
SslConfiguration

Describes an app's SSL configuration.

Contents

Certificate

The contents of the certificate's domain.crt file.

Type: String

Required: Yes

Chain

Optional. Can be used to specify an intermediate certificate authority key or client authentication.

Type: String

Required: No

PrivateKey

The private key; the contents of the certificate's domain.kex file.

Type: String

Required: Yes

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 (p. 200) object

Required: No

ConfigurationManager

The configuration manager.

Type: StackConfigurationManager (p. 258) 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 Creating Apps or Custom Recipes and Cookbooks.

Type: Source (p. 251) object
Contents

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.
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 11.4.

Type: String
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 (p. 226) 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 Go
- AWS SDK for Java
See Also

- AWS SDK for Ruby V2
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 will be 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
TimeBasedAutoScalingConfiguration

Describes an instance's time-based auto scaling configuration.

Contents

**AutoScalingSchedule**

A `WeeklyAutoScalingSchedule` object with the instance schedule.

Type: `WeeklyAutoScalingSchedule` (p. 269) 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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

Ec2VolumeId

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.
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

VolumeId

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 500 GiB and a maximum size of 16384 GiB.
- sc1 - Cold HDD. Cold HDD volumes must have a minimum size of 500 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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
VolumeConfiguration

Describes an Amazon EBS volume configuration.

Contents

**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

**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

**RaidLevel**

The volume RAID level.

Type: Integer

Required: No

**Size**

The volume size.

Type: Integer

Required: Yes

**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.
See Also

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

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

```json
{ "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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
Common Parameters

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

**Action**
- The action to be performed.
  - Type: string
  - Required: Yes

**Version**
- The API version that the request is written for, expressed in the format YYYY-MM-DD.
  - Type: string
  - Required: Yes

**X-Amz-Algorithm**
- The hash algorithm that you used to create the request signature.
  - Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.
  - Type: string
  - Valid Values: AWS4-HMAC-SHA256
  - Required: Conditional

**X-Amz-Credential**
- The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string (“aws4_request”). The value is expressed in the following format: access_key/YYYYMMDD/region/service/aws4_request.
  - For more information, see Task 2: Create a String to Sign for Signature Version 4 in the Amazon Web Services General Reference.
  - Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.
  - Type: string
  - Required: Conditional

**X-Amz-Date**
- The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSSZ). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.
  - Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is
not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Handling Dates in Signature Version 4 in the Amazon Web Services General Reference.

Type: string
Required: Conditional

**X-Amz-Security-Token**

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

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

Type: string
Required: Conditional

**X-Amz-Signature**

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

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

Type: string
Required: Conditional

**X-Amz-SignedHeaders**

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

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

Type: string
Required: Conditional
Common Errors

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

**AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

**IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

**InternalFailure**

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

HTTP Status Code: 500

**InvalidAction**

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

HTTP Status Code: 400

**InvalidClientTokenId**

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

HTTP Status Code: 403

**InvalidParameterCombination**

Parameters that must not be used together were used together.

HTTP Status Code: 400

**InvalidParameterValue**

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

HTTP Status Code: 400

**InvalidQueryParameter**

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

HTTP Status Code: 400

**MalformedQueryString**

The query string contains a syntax error.

HTTP Status Code: 404

**MissingAction**

The request is missing an action or a required parameter.

HTTP Status Code: 400
MissingAuthenticationToken

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

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

OptInRequired

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

HTTP Status Code: 403

RequestExpired

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

HTTP Status Code: 400

ServiceUnavailable

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

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

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

HTTP Status Code: 400