AWS OpsWorks

API Reference

API Version 2013-02-18

AWS OpsWorks: API Reference

Table of Contents

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.eu-west-1.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. 28), CloneStack (p. 9), or UpdateStack (p. 130) 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.

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Actions

The following actions are supported:

AssignInstance

Assign a registered instance to a layer.

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

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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. 103). After you register the volume, you must call UpdateVolume (p. 137) 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. 194).

The request accepts the following data in JSON format.

InstanceId (p. 6)
The instance ID.
Type: String
Required: No

VolumeId (p. 6)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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. 97). For more information, see Resource Management.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

ElasticIp (p. 7)
The Elastic IP address.
Type: String
Required: Yes

InstanceId (p. 7)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

AttachElasticLoadBalancer

Attaches an Elastic Load Balancing load balancer to a specified layer. 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. 194).

The request accepts the following data in JSON format.

ElasticLoadBalancerName (p. 8)
The Elastic Load Balancing instance's name.
Type: String
Required: Yes

LayerId (p. 8)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

AgentVersion (p. 9)

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. 45). 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. 9)

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

Type: String to String map

Valid Map Keys: `Color`

Required: No

ChefConfiguration (p. 9)

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. 146) object

Required: No

CloneAppIds (p. 9)

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

Type: array of Strings

Required: No

ClonePermissions (p. 9)

Whether to clone the source stack's permissions.

Type: Boolean

Required: No

ConfigurationManager (p. 9)

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. 185) object

Required: No

CustomCookbooksSource (p. 9)

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. 180) object

Required: No

CustomJson (p. 9)

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. 9)

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. 9)

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. 9)

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 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 7`
- `Red Hat Enterprise Linux 7`
- `Microsoft Windows Server 2012 R2 Base`, `Microsoft Windows Server 2012 R2 with SQL Server Express`, `Microsoft Windows Server 2012 R2 with SQL Server Standard`, or `Microsoft Windows Server 2012 R2 with SQL Server Web`.
- A custom AMI: `Custom`. You specify the custom AMI you want to use when you create instances. For more information 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

Required: No

DefaultRootDeviceType (p. 9)

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

Type: String

Valid Values: `ebs | instance-store`

Required: No

DefaultSshKeyName (p. 9)

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. 9)

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. 9)

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

Required: No

Name (p. 9)

The cloned stack name.

Type: String

Required: No

Region (p. 9)

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

Type: String

Required: No

ServiceRoleArn (p. 9)

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. 68). For more information about IAM ARNs, see Using Identifiers.

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

Type: String

Required: Yes

SourceStackId (p. 9)

The source stack ID.

Type: String

Required: Yes

UseCustomCookbooks (p. 9)

Whether to use custom cookbooks.

Type: Boolean

Required: No

UseOpsworksSecurityGroups (p. 9)

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. 9)

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. 13)
The cloned stack ID.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

CreateApp

Creates an app for a specified stack. For more information, see Creating Apps.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AppSource (p. 15)

A `Source` object that specifies the app repository.

Type: Source (p. 180) object

Required: No

Attributes (p. 15)

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

Type: String to String map

Valid Map Keys: `DocumentRoot | RailsEnv | AutoBundleOnDeploy | AwsFlowRubySettings`

Required: No

DataSources (p. 15)

The app's data source.

Type: array of DataSource (p. 149) objects

Required: No

Description (p. 15)

A description of the app.

Type: String

Required: No

Domains (p. 15)

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. 15)

Whether to enable SSL for the app.

Type: Boolean

Required: No

Environment (p. 15)

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. 158) objects

Required: No

Name (p. 15)

The app name.

Type: String

Required: Yes

Shortname (p. 15)

The app's short name.

Type: String

Required: No

SslConfiguration (p. 15)
An `SslConfiguration` object with the SSL configuration.
Type: SslConfiguration (p. 181) object
Required: No

StackId (p. 15)
The stack ID.
Type: String
Required: Yes

Type (p. 15)
The app type. Each supported type is associated with a particular layer. For example, PHP applications are associated with a PHP layer. AWS OpsWorks Stacks deploys an application to those instances that are members of the corresponding layer. If your app isn't one of the standard types, or you prefer to implement your own Deploy recipes, specify `other`.
Type: String
Valid Values: `aws-flow-ruby | java | rails | php | nodejs | static | other`
Required: Yes

Response Syntax

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

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

AppId (p. 17)
The app ID.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

CreateDeployment

Runs deployment or stack commands. For more information, see Deploying Apps and Run Stack Commands.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AppId (p. 18)

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

Type: String

Required: No

Command (p. 18)

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

Type: DeploymentCommand (p. 152) object

Required: Yes

Comment (p. 18)

A user-defined comment.

Type: String

Required: No

CustomJson (p. 18)

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. 18)

The instance IDs for the deployment targets.

Type: array of Strings

Required: No

LayerIds (p. 18)

The layer IDs for the deployment targets.

Type: array of Strings

Required: No

StackId (p. 18)

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. 19)

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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

CreateInstance

Creates an instance in a specified stack. For more information, see Adding an Instance to a Layer.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AgentVersion (p. 20)

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. 45). AgentVersion cannot be set to Chef 12.2.

Type: String

Required: No

AmiId (p. 20)

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. 20)

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. 20)

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. 20)

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

Type: String

Required: No

BlockDeviceMappings (p. 20)

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. 145) objects

Required: No

EbsOptimized (p. 20)

Whether to create an Amazon EBS-optimized instance.

Type: Boolean

Required: No

Hostname (p. 20)

The instance host name.

Type: String

Required: No

InstallUpdatesOnBoot (p. 20)

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. 18) 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. 20)

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. 20)

An array that contains the instance's layer IDs.

Type: array of Strings

Required: Yes

Os (p. 20)

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 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 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. 20) 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 SystemsFor more information on how to use custom AMIs with AWS OpsWorks Stacks, see Using Custom AMIs.

Type: String

Required: No

RootDeviceType (p. 20)

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. 20)

The instance's Amazon EC2 key-pair name.

Type: String

Required: No

StackId (p. 20)

The stack ID.

Type: String

Required: Yes

SubnetId (p. 20)
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. 20)
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. 20)
The instance's virtualization type, `paravirtual` or `hvm`.

Type: String

Required: No

Response Syntax

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

Response Elements

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

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

InstanceId (p. 23)
The instance ID.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.

HTTP Status Code: 400

CreateLayer

Creates a layer. For more information, see How to Create a Layer.

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

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

Request Syntax

```
{
   "Attributes": {
      "string" : "string"
   },
   "AutoAssignElasticIps": boolean,
   "AutoAssignPublicIps": boolean,
   "CustomInstanceProfileArn": "string",
   "CustomJson": "string",
   "CustomRecipes": {
      "Configure": [ "string" ],
      "Deploy": [ "string" ],
      "Setup": [ "string" ],
      "Shutdown": [ "string" ],
      "Undeploy": [ "string" ]
   },
   "CustomSecurityGroupIds": [ "string" ],
   "EnableAutoHealing": boolean,
   "InstallUpdatesOnBoot": boolean,
   "LifecycleEventConfiguration": {
      "Shutdown": {
         "DelayUntilElbConnectionsDrained": boolean,
         "ExecutionTimeout": number
      }
   },
   "Name": "string",
   "Packages": [ "string" ],
   "Shortname": "string",
   "StackId": "string",
   "Type": "string",
   "UseEbsOptimizedInstances": boolean,
   "VolumeConfigurations": [
      {
         "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. 194).

The request accepts the following data in JSON format.

Attributes (p. 24)

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

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

Type: String to String map

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

Required: No

AutoAssignElasticIps (p. 24)

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. 24)

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

CustomInstanceProfileArn (p. 24)

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. 24)

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. 24)

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

Type: Recipes (p. 175) object

Required: No

CustomSecurityGroupIds (p. 24)

An array containing the layer custom security group IDs.

Type: array of Strings

Required: No

EnableAutoHealing (p. 24)

Whether to disable auto healing for the layer.

Type: Boolean

Required: No

InstallUpdatesOnBoot (p. 24)

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. 18) 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. 24)

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

Type: LifecycleEventConfiguration (p. 169) object

Required: No

Name (p. 24)

The layer name, which is used by the console.

Type: String

Required: Yes

Packages (p. 24)

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

Type: array of Strings

Required: No

Shortname (p. 24)

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. 24)

The layer stack ID.

Type: String

Required: Yes

Type (p. 24)

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. 24)

Whether to use Amazon EBS-optimized instances.

Type: Boolean

Required: No

VolumeConfigurations (p. 24)

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

Type: array of VolumeConfiguration (p. 192) objects

Required: No

Response Syntax

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

Response Elements

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

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

LayerId (p. 27)

The layer ID.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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

```
{
   "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. 194).

The request accepts the following data in JSON format.

AgentVersion (p. 28)

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. 45). 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. 28)

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

Type: String to String map

Valid Map Keys: `Color`

Required: No

ChefConfiguration (p. 28)

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. 146) object

Required: No

ConfigurationManager (p. 28)

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. 185) object

Required: No

CustomCookbooksSource (p. 28)

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. 180) object

Required: No

CustomJson (p. 28)

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. 28)

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. 28)

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. 28)

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 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 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. 28)

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. 28)

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. 28)

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. 28)

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. 28)

The stack name.

Type: String

Required: Yes

Region (p. 28)

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. 28)

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. 28)

Whether the stack uses custom cookbooks.

Type: Boolean

Required: No

UseOpsworksSecurityGroups (p. 28)

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. 28)

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

```
{
   "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. 32)

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. 196).

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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

```
{
   "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. 194).

The request accepts the following data in JSON format.

AllowSelfManagement (p. 33)
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. 33)
The user's IAM ARN; this can also be a federated user's ARN.

Type: String

Required: Yes

SshPublicKey (p. 33)
The user's public SSH key.

Type: String

Required: No

SshUsername (p. 33)
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

```
{
   "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. 33)
The user's IAM ARN.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

DeleteApp

Deletes a specified app.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AppId (p. 35)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

DeleteInstance

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

For more information, see Deleting Instances.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

DeleteElasticIp (p. 36)
Whether to delete the instance Elastic IP address.
Type: Boolean
Required: No

DeleteVolumes (p. 36)
Whether to delete the instance's Amazon EBS volumes.
Type: Boolean
Required: No

InstanceId (p. 36)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

DeleteLayer

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

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

LayerId (p. 37)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

DeleteStack

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

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

StackId (p. 38)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

IamUserArn (p. 39)
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 (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

EcsClusterArn (p. 40)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

ElasticIp (p. 41)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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 can not 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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

InstanceId (p. 42)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

DeregisterRdsDbInstance

Deregisters an Amazon RDS instance.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

RdsDbInstanceArn (p. 43)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

DeregisterVolume

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

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

VolumeId (p. 44)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.

HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

ConfigurationManager (p. 45)
The configuration manager.
Type: StackConfigurationManager (p. 185) object
Required: No

StackId (p. 45)
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. 45)
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 (p. 140) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeApps

Requests a description of a specified set of apps.

> **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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AppIds (p. 47)
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. 47)
The app stack ID. If you use this parameter, `DescribeApps` returns a description of the apps in the specified stack.

Type: String

Required: No

Response Syntax

```
{
   "Apps": [
      {
         "AppId": "string",
         "AppSource": {
            "Password": "string",
            "Revision": "string",
            "SshKey": "string",
            "Type": "string",
            "Url": "string",
            "Username": "string"
         },
         "Attributes": {
            "string" : "string"
         },
         "CreatedAt": "string",
         "DataSources": [
```

```
            {
               "Arn": "string",
               "DatabaseName": "string",
               "Type": "string"
            }
         ],
         "Description": "string",
         "Domains": [ "string" ],
         "EnableSsl": boolean,
         "Environment": [
            {
               "Key": "string",
               "Secure": boolean,
               "Value": "string"
            }
         ],
         "Name": "string",
         "Shortname": "string",
         "SslConfiguration": {
            "Certificate": "string",
            "Chain": "string",
            "PrivateKey": "string"
         },
         "StackId": "string",
         "Type": "string"
      }
   ]
}
```

Response Elements

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

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

Apps (p. 47)

An array of App objects that describe the specified apps.

Type: array of App (p. 141) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeCommands

Describes the results of specified commands.

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

CommandIds (p. 49)
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. 49)
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. 49)
The instance ID. If you include this parameter, `DescribeCommands` returns a description of the commands associated with the specified instance.

Type: String

Required: No

Response Syntax

```
{
   "Commands": [
      {
         "AcknowledgedAt": "string",
         "CommandId": "string",
         "CompletedAt": "string",
         "CreatedAt": "string",
         "DeploymentId": "string",
         "ExitCode": number,
         "InstanceId": "string",
```

```
            "LogUrl": "string",
            "Status": "string",
            "Type": "string"
        }
    ]
}
```

Response Elements

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

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

Commands (p. 49)

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

Type: array of Command (p. 147) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeDeployments

Requests a description of a specified set of deployments.

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AppId (p. 51)
The app ID. If you include this parameter, `DescribeDeployments` returns a description of the commands associated with the specified app.

Type: String

Required: No

DeploymentIds (p. 51)
An array of deployment IDs to be described. If you include this parameter, `DescribeDeployments` returns a description of the specified deployments. Otherwise, it returns a description of every deployment.

Type: array of Strings

Required: No

StackId (p. 51)
The stack ID. If you include this parameter, `DescribeDeployments` returns a description of the commands associated with the specified stack.

Type: String

Required: No

Response Syntax

```
{
   "Deployments": [
      {
         "AppId": "string",
         "Command": {
            "Args": {
               "string" : [ "string" ]
            },
            "Name": "string"
```

```
         },
         "Comment": "string",
         "CompletedAt": "string",
         "CreatedAt": "string",
         "CustomJson": "string",
         "DeploymentId": "string",
         "Duration": number,
         "IamUserArn": "string",
         "InstanceIds": [ "string" ],
         "StackId": "string",
         "Status": "string"
      }
   ]
}
```

Response Elements

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

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

Deployments (p. 51)

An array of `Deployment` objects that describe the deployments.

Type: array of Deployment (p. 150) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeEcsClusters

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

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

EcsClusterArns (p. 53)

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

Type: array of Strings

Required: No

MaxResults (p. 53)

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. 53)

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. 53)

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

Type: String

Required: No

Response Syntax

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

Response Elements

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

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

EcsClusters (p. 54)

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

Type: array of EcsCluster (p. 155) objects

NextToken (p. 54)

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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeElasticIps

Describes Elastic IP addresses.

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

InstanceId (p. 55)
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. 55)
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. 55)
A stack ID. If you include this parameter, `DescribeElasticIps` returns a description of the Elastic IP addresses that are registered with the specified stack.

Type: String

Required: No

Response Syntax

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

```
    ]
}
```

Response Elements

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

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

ElasticIps (p. 55)

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

Type: array of ElasticIp (p. 156) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeElasticLoadBalancers

Describes a stack's Elastic Load Balancing 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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

LayerIds (p. 57)

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. 57)

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

Type: String

Required: No

Response Syntax

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

Response Elements

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

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

ElasticLoadBalancers (p. 57)

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

Type: array of ElasticLoadBalancer (p. 157) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeInstances

Requests a description of a set of 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" ],
   "LayerId": "string",
   "StackId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

InstanceIds (p. 59)

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. 59)

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. 59)

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",
         "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. 59)
An array of `Instance` objects that describe the instances.
Type: array of Instance (p. 159) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

DescribeLayers

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

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

LayerIds (p. 62)
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. 62)
The stack ID.
Type: String
Required: No

Response Syntax

```
{
   "Layers": [
      {
         "Attributes": {
            "string" : "string"
         },
         "AutoAssignElasticIps": boolean,
         "AutoAssignPublicIps": boolean,
         "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": [
            {
               "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. 62)

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

Type: array of Layer (p. 166) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

LayerIds (p. 65)
An array of layer IDs.
Type: array of Strings
Required: Yes

Response Syntax

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

```
}
```

Response Elements

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

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

LoadBasedAutoScalingConfigurations (p. 65)

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

Type: array of LoadBasedAutoScalingConfiguration (p. 170) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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

```
{
   "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. 67)

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

Type: SelfUserProfile (p. 177) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

DescribePermissions

Describes the permissions for a specified stack.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

IamUserArn (p. 68)

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. 68)

The stack ID.

Type: String

Required: No

Response Syntax

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

Response Elements

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

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

Permissions (p. 68)

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. 171) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeRaidArrays

Describe an instance's RAID arrays.

> **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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

InstanceId (p. 70)
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. 70)
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. 70)
The stack ID.

Type: String

Required: No

Response Syntax

```
{
   "RaidArrays": [
      {
         "AvailabilityZone": "string",
         "CreatedAt": "string",
         "Device": "string",
         "InstanceId": "string",
         "Iops": number,
         "MountPoint": "string",
         "Name": "string",
         "NumberOfDisks": number,
```

```
            "RaidArrayId": "string",
            "RaidLevel": number,
            "Size": number,
            "StackId": "string",
            "VolumeType": "string"
        }
    ]
}
```

Response Elements

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

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

RaidArrays (p. 70)

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

Type: array of RaidArray (p. 172) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

RdsDbInstanceArns (p. 72)

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

Type: array of Strings

Required: No

StackId (p. 72)

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

```
{
   "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. 72)

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

Type: array of RdsDbInstance (p. 174) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

InstanceId (p. 74)

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. 74)

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. 74)

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

Type: String

Required: No

Response Syntax

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

Response Elements

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

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

ServiceErrors (p. 74)

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

Type: array of ServiceError (p. 178) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

StackId (p. 76)
The stack ID
Type: String
Required: Yes

Response Syntax

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

Response Elements

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

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

AgentInstallerUrl (p. 76)
The AWS OpsWorks Stacks agent installer's URL.
Type: String

Parameters (p. 76)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

StackIds (p. 78)

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"
         },
         "CustomJson": "string",
```

```
            "DefaultAvailabilityZone": "string",
            "DefaultInstanceProfileArn": "string",
            "DefaultOs": "string",
            "DefaultRootDeviceType": "string",
            "DefaultSshKeyName": "string",
            "DefaultSubnetId": "string",
            "HostnameTheme": "string",
            "Name": "string",
            "Region": "string",
            "ServiceRoleArn": "string",
            "StackId": "string",
            "UseCustomCookbooks": boolean,
            "UseOpsworksSecurityGroups": boolean,
            "VpcId": "string"
        }
    ]
}
```

Response Elements

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

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

Stacks (p. 78)

An array of `Stack` objects that describe the stacks.

Type: array of Stack (p. 182) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

StackId (p. 80)
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,
         "Stopped": number,
         "Stopping": number,
         "Terminated": number,
         "Terminating": number,
         "Unassigning": number
      },
      "LayersCount": number,
```

```
      "Name": "string",
      "StackId": "string"
   }
}
```

Response Elements

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

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

StackSummary (p. 80)

A `StackSummary` object that contains the results.

Type: StackSummary (p. 186) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

InstanceIds (p. 82)
An array of instance IDs.
Type: array of Strings
Required: Yes

Response Syntax

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

```
        },
        "InstanceId": "string"
      }
   ]
}
```

Response Elements

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

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

TimeBasedAutoScalingConfigurations (p. 82)

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

Type: array of TimeBasedAutoScalingConfiguration (p. 188) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

IamUserArns (p. 84)
An array of IAM or federated user ARNs that identify the users to be described.
Type: array of Strings
Required: No

Response Syntax

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

Response Elements

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

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

UserProfiles (p. 84)
A `Users` object that describes the specified users.
Type: array of UserProfile (p. 189) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DescribeVolumes

Describes an instance's Amazon EBS volumes.

> **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

```
{
   "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. 194).

The request accepts the following data in JSON format.

InstanceId (p. 86)
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. 86)
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. 86)
A stack ID. The action describes the stack's registered Amazon EBS volumes.

Type: String

Required: No

VolumeIds (p. 86)
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

Required: No

Response Syntax

```
{
   "Volumes": [
      {
         "AvailabilityZone": "string",
```

```
            "Device": "string",
            "Ec2VolumeId": "string",
            "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. 86)

An array of volume IDs.

Type: array of Volume (p. 190) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

DetachElasticLoadBalancer

Detaches a specified Elastic Load Balancing instance from its layer.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

ElasticLoadBalancerName (p. 88)
The Elastic Load Balancing instance's name.
Type: String
Required: Yes

LayerId (p. 88)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

ElasticIp (p. 89)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

GetHostnameSuggestion

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

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

LayerId (p. 90)
The layer ID.
Type: String
Required: Yes

Response Syntax

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

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

Hostname (p. 90)
The generated host name.
Type: String

LayerId (p. 90)
The layer ID.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

InstanceId (p. 92)
The instance's AWS OpsWorks Stacks ID.

Type: String

Required: Yes

ValidForInMinutes (p. 92)
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. 92)
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. 187) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

RebootInstance

Reboots a specified instance. For more information, see Starting, Stopping, and Rebooting Instances.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

InstanceId (p. 94)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

EcsClusterArn (p. 95)
The cluster's ARN.
Type: String
Required: Yes

StackId (p. 95)
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. 95)
The cluster's ARN.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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. 41). For more information, see Resource Management.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

ElasticIp (p. 97)
The Elastic IP address.
Type: String
Required: Yes

StackId (p. 97)
The stack ID.
Type: String
Required: Yes

Response Syntax

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

Response Elements

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

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

ElasticIp (p. 97)
The Elastic IP address.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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. 20) API. For example, registered instances must be running a supported Linux-based operating system, and they must have a supported instance type. For more information about requirements for instances that you want to register, see Preparing the Instance.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

Hostname (p. 99)
The instance's hostname.
Type: String
Required: No

InstanceIdentity (p. 99)
An InstanceIdentity object that contains the instance's identity.
Type: InstanceIdentity (p. 163) object
Required: No

PrivateIp (p. 99)
The instance's private IP address.
Type: String
Required: No

PublicIp (p. 99)
The instance's public IP address.

Type: String

Required: No

RsaPublicKey (p. 99)

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

Type: String

Required: No

RsaPublicKeyFingerprint (p. 99)

The instances public RSA key fingerprint.

Type: String

Required: No

StackId (p. 99)

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. 100)

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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

RegisterRdsDbInstance

Registers an Amazon RDS instance with a stack.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

DbPassword (p. 101)
The database password.
Type: String
Required: Yes

DbUser (p. 101)
The database's master user name.
Type: String
Required: Yes

RdsDbInstanceArn (p. 101)
The Amazon RDS instance's ARN.
Type: String
Required: Yes

StackId (p. 101)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.

HTTP Status Code: 400

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. 44). For more information, see Resource Management.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

Ec2VolumeId (p. 103)
The Amazon EBS volume ID.
Type: String
Required: No

StackId (p. 103)
The stack ID.
Type: String
Required: Yes

Response Syntax

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

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

VolumeId (p. 103)
The volume ID.
Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

SetLoadBasedAutoScaling

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

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

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

DownScaling (p. 105)

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. 143) object

Required: No

Enable (p. 105)

Enables load-based auto scaling for the layer.

Type: Boolean

Required: No

LayerId (p. 105)

The layer ID.

Type: String

Required: Yes

UpScaling (p. 105)

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

Type: AutoScalingThresholds (p. 143) object

Required: No

Response Elements

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

SetPermission

Specifies a user's permissions. For more information, see Security and Permissions.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AllowSsh (p. 107)
The user is allowed to use SSH to communicate with the instance.
Type: Boolean
Required: No

AllowSudo (p. 107)
The user is allowed to use **sudo** to elevate privileges.
Type: Boolean
Required: No

IamUserArn (p. 107)
The user's IAM ARN. This can also be a federated user's ARN.
Type: String
Required: Yes

Level (p. 107)
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. 107)
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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

AutoScalingSchedule (p. 109)

An `AutoScalingSchedule` with the instance schedule.

Type: WeeklyAutoScalingSchedule (p. 193) object

Required: No

InstanceId (p. 109)

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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

InstanceId (p. 111)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

StartStack

Starts a stack's instances.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

StackId (p. 112)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

InstanceId (p. 113)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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 (p. 194).

The request accepts the following data in JSON format.

StackId (p. 114)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

UnassignInstance

Unassigns a registered instance from all of it's 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. 194).

The request accepts the following data in JSON format.

InstanceId (p. 115)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

VolumeId (p. 116)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

UpdateApp

Updates a specified app.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AppId (p. 117)
The app ID.

Type: String

Required: Yes

AppSource (p. 117)

A `Source` object that specifies the app repository.

Type: Source (p. 180) object

Required: No

Attributes (p. 117)

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

Type: String to String map

Valid Map Keys: `DocumentRoot | RailsEnv | AutoBundleOnDeploy | AwsFlowRubySettings`

Required: No

DataSources (p. 117)

The app's data sources.

Type: array of DataSource (p. 149) objects

Required: No

Description (p. 117)

A description of the app.

Type: String

Required: No

Domains (p. 117)

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. 117)

Whether SSL is enabled for the app.

Type: Boolean

Required: No

Environment (p. 117)

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. 158) objects

Required: No

Name (p. 117)

The app name.

Type: String

Required: No

SslConfiguration (p. 117)

An `SslConfiguration` object with the SSL configuration.

Type: SslConfiguration (p. 181) object

Required: No

Type (p. 117)

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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

UpdateElasticIp

Updates a registered Elastic IP address's name. For more information, see Resource Management.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

ElasticIp (p. 120)
The address.
Type: String
Required: Yes

Name (p. 120)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

UpdateInstance

Updates a specified instance.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AgentVersion (p. 121)

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. 45).

AgentVersion cannot be set to Chef 12.2.

Type: String

Required: No

AmiId (p. 121)

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. 121)

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. 121)

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. 121)

This property cannot be updated.

Type: Boolean

Required: No

Hostname (p. 121)

The instance host name.

Type: String

Required: No

InstallUpdatesOnBoot (p. 121)

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. 18) 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. 121)

The instance ID.

Type: String

Required: Yes

InstanceType (p. 121)

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

Type: String

Required: No

LayerIds (p. 121)

The instance's layer IDs.

Type: array of Strings

Required: No

Os (p. 121)

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 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 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. 121)

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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

UpdateLayer

Updates a specified layer.

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

Request Syntax

```
{
   "Attributes": {
      "string" : "string"
   },
   "AutoAssignElasticIps": boolean,
   "AutoAssignPublicIps": boolean,
   "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": [
      {
         "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. 194).

The request accepts the following data in JSON format.

Attributes (p. 124)

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

Type: String to String map

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

Required: No

AutoAssignElasticIps (p. 124)

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. 124)

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

CustomInstanceProfileArn (p. 124)

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. 124)

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. 124)

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

Type: Recipes (p. 175) object

Required: No

CustomSecurityGroupIds (p. 124)

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

Type: array of Strings

Required: No

EnableAutoHealing (p. 124)

Whether to disable auto healing for the layer.

Type: Boolean

Required: No

InstallUpdatesOnBoot (p. 124)

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. 18) 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. 124)

The layer ID.

Type: String

Required: Yes

LifecycleEventConfiguration (p. 124)

Type: LifecycleEventConfiguration (p. 169) object

Required: No

Name (p. 124)

The layer name, which is used by the console.

Type: String

Required: No

Packages (p. 124)

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

Type: array of Strings

Required: No

Shortname (p. 124)

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. 124)

Whether to use Amazon EBS-optimized instances.

Type: Boolean

Required: No

VolumeConfigurations (p. 124)

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

Type: array of VolumeConfiguration (p. 192) 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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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. 194).

The request accepts the following data in JSON format.

SshPublicKey (p. 128)
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. 196).

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

UpdateRdsDbInstance

Updates an Amazon RDS instance.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

DbPassword (p. 129)
The database password.
Type: String
Required: No

DbUser (p. 129)
The master user name.
Type: String
Required: No

RdsDbInstanceArn (p. 129)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

UpdateStack

Updates a specified stack.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

AgentVersion (p. 130)

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. 45). 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. 130)

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

Type: String to String map

Valid Map Keys: `Color`

Required: No

ChefConfiguration (p. 130)

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. 146) object

Required: No

ConfigurationManager (p. 130)

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. 185) object

Required: No

CustomCookbooksSource (p. 130)

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. 180) object

Required: No

CustomJson (p. 130)

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. 130)

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. 28).

Type: String

Required: No

DefaultInstanceProfileArn (p. 130)

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. 130)

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 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 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. 130)

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. 130)

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. 130)

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. 130)

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. 130)

The stack's new name.

Type: String

Required: No

ServiceRoleArn (p. 130)

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

Type: String

Required: No

StackId (p. 130)

The stack ID.

Type: String

Required: Yes

UseCustomCookbooks (p. 130)

Whether the stack uses custom cookbooks.

Type: Boolean

Required: No

UseOpsworksSecurityGroups (p. 130)

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. 196).

ResourceNotFoundException

Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

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

```
{
   "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. 194).

The request accepts the following data in JSON format.

AllowSelfManagement (p. 135)
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. 135)
The user IAM ARN. This can also be a federated user's ARN.

Type: String

Required: Yes

SshPublicKey (p. 135)
The user's new SSH public key.

Type: String

Required: No

SshUsername (p. 135)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.

HTTP Status Code: 400

ValidationException

Indicates that a request was not valid.

HTTP Status Code: 400

UpdateVolume

Updates an Amazon EBS volume's name or mount point. For more information, see Resource Management.

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

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 194).

The request accepts the following data in JSON format.

MountPoint (p. 137)
The new mount point.
Type: String
Required: No

Name (p. 137)
The new name.
Type: String
Required: No

VolumeId (p. 137)
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. 196).

ResourceNotFoundException
Indicates that a resource was not found.
HTTP Status Code: 400

ValidationException
Indicates that a request was not valid.
HTTP Status Code: 400

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

Describes an agent version.

Contents

ConfigurationManager
The configuration manager.
Type: StackConfigurationManager (p. 185) object
Required: No

Version
The agent version.
Type: String
Required: No

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. 180) object

Required: No

Attributes

The stack attributes.

Type: String to String map

Valid Map 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. 149) 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. 158) 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. 181) 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

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

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. 154) 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

ChefConfiguration

Describes the Chef configuration.

Contents

BerkshelfVersion
The Berkshelf version.
Type: String
Required: No

ManageBerkshelf
Whether to enable Berkshelf.
Type: Boolean
Required: No

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:

- `deploy`

- `rollback`
- `start`
- `stop`
- `restart`
- `undeploy`
- `update_dependencies`
- `install_dependencies`
- `update_custom_cookbooks`
- `execute_recipes`

Type: String

Required: No

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`, or `RdsDbInstance`.

Type: String

Required: No

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. 152) 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

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 2014.09`. 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 2014.09, set `Args` to the following.

`{ "upgrade_os_to":["Amazon Linux 2014.09"], "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 `phpapp::appsetup`, set `Args` to `{"recipes":["phpapp::appsetup"]}`.
- `install_dependencies`: Install the stack's dependencies.
- `update_custom_cookbooks`: Update the stack's custom cookbooks.
- `update_dependencies`: Update the stack's dependencies.

  Note
  The update_dependencies and install_dependencies commands are supported only for Linux instances. You can run the commands successfully on Windows instances, but they do nothing.

For apps, the following commands are available:

- `deploy`: Deploy an app. Ruby on Rails apps have an optional `Args` parameter named `migrate`. Set `Args` to {"migrate":["true"]} to migrate the database. The default setting is {"migrate":["false"]}.
- `rollback` Roll the app back to the previous version. When you update an app, AWS OpsWorks Stacks stores the previous version, up to a maximum of five versions. You can use this command to roll an app back as many as four versions.
- `start`: Start the app's web or application server.
- `stop`: Stop the app's web or application server.
- `restart`: Restart the app's web or application server.
- `undeploy`: Undeploy the app.

Type: String

Valid Values: `install_dependencies | update_dependencies | update_custom_cookbooks | execute_recipes | configure | setup | deploy | rollback | start | stop | restart | undeploy`

Required: Yes

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, and `standard` for Magnetic volumes.

Type: String

Valid Values: `gp2 | io1 | standard`

Required: No

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

ElasticIp

Describes an Elastic IP address.

Contents

Domain
The domain.
Type: String
Required: No

InstanceId
The ID of the instance that the address is attached to.
Type: String
Required: No

Ip
The IP address.
Type: String
Required: No

Name
The name.
Type: String
Required: No

Region
The AWS region. For more information, see Regions and Endpoints.
Type: String
Required: No

ElasticLoadBalancer

Describes an Elastic Load Balancing instance.

Contents

AvailabilityZones
A list of Availability Zones.
Type: array of Strings
Required: No

DnsName
The instance's public DNS name.
Type: String
Required: No

Ec2InstanceIds
A list of the EC2 instances 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

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. 47) 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

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

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. 145) 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. 18) 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. 74).
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 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. 176) 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

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

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

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

Layer

Describes a layer.

Contents

Attributes

The layer attributes.

For the `HaproxyStatsPassword`, `MysqlRootPassword`, and `GangliaPassword` attributes, AWS OpsWorks Stacks returns `*****FILTERED*****` instead of the actual value

For an ECS Cluster layer, AWS OpsWorks Stacks the `EcsClusterArn` attribute is set to the cluster's ARN.

Type: String to String map

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

Required: No

AutoAssignElasticIps

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

Type: Boolean

Required: No

AutoAssignPublicIps

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

Type: Boolean

Required: No

CreatedAt

Date when the layer was created.

Type: String

Required: No

CustomInstanceProfileArn

The ARN of the default IAM profile to be used for the layer's EC2 instances. For more information about IAM ARNs, see Using Identifiers.

Type: String

Required: No

CustomJson

A JSON formatted string containing the layer's custom stack configuration and deployment attributes.

Type: String

Required: No

CustomRecipes

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

Type: Recipes (p. 175) 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. 175) object

Required: No

DefaultSecurityGroupNames

An array containing the layer's security group names.

Type: array of Strings

Required: No

EnableAutoHealing

Whether auto healing is disabled for the layer.

Type: Boolean

Required: No

InstallUpdatesOnBoot

Whether to install operating system and package updates when the instance boots. The default value is `true`. If this value is set to `false`, you must then update your instances manually by using CreateDeployment (p. 18) 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. 169) 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 (p. 192) objects

Required: No

LifecycleEventConfiguration

Specifies the lifecycle event configuration

Contents

Shutdown

A `ShutdownEventConfiguration` object that specifies the Shutdown event configuration.

Type: ShutdownEventConfiguration (p. 179) object

Required: No

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. 143) 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. 143) object

Required: No

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

RaidArray

Describes an instance's RAID array.

Contents

AvailabilityZone
The array's Availability Zone. For more information, see Regions and Endpoints.
Type: String
Required: No

CreatedAt
When the RAID array was created.
Type: String
Required: No

Device
The array's Linux device. For example /dev/mdadm0.
Type: String
Required: No

InstanceId
The instance ID.
Type: String
Required: No

Iops
For PIOPS volumes, the IOPS per disk.
Type: Integer
Required: No

MountPoint
The array's mount point.
Type: String
Required: No

Name
The array name.
Type: String
Required: No

NumberOfDisks
The number of disks in the array.
Type: Integer
Required: No

RaidArrayId
The array ID.
Type: String
Required: No

RaidLevel
The RAID level.
Type: Integer
Required: No

Size
The array's size.
Type: Integer

Required: No

StackId

The stack ID.

Type: String

Required: No

VolumeType

The volume type, standard or PIOPS.

Type: String

Required: No

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

Recipes

AWS OpsWorks Stacks supports five lifecycle events: **setup**, **configuration**, **deploy**, **undeploy**, and **shutdown**. For each layer, AWS OpsWorks Stacks runs a set of standard recipes for each event. In addition, you can provide custom recipes for any or all layers and events. AWS OpsWorks Stacks runs custom event recipes after the standard recipes. `LayerCustomRecipes` specifies the custom recipes for a particular layer to be run in response to each of the five events.

To specify a recipe, use the cookbook's directory name in the repository followed by two colons and the recipe name, which is the recipe's file name without the .rb extension. For example: phpapp2::dbsetup specifies the dbsetup.rb recipe in the repository's phpapp2 folder.

Contents

Configure

An array of custom recipe names to be run following a `configure` event.

Type: array of Strings

Required: No

Deploy

An array of custom recipe names to be run following a `deploy` event.

Type: array of Strings

Required: No

Setup

An array of custom recipe names to be run following a `setup` event.

Type: array of Strings

Required: No

Shutdown

An array of custom recipe names to be run following a `shutdown` event.

Type: array of Strings

Required: No

Undeploy

An array of custom recipe names to be run following a `undeploy` event.

Type: array of Strings

Required: No

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

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

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

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

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.

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

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

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 Map 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. 146) object

Required: No

ConfigurationManager

The configuration manager.

Type: StackConfigurationManager (p. 185) 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. 180) object

Required: No

CustomJson

A JSON object that contains user-defined attributes to be added to the stack configuration and deployment attributes. You can use custom JSON to override the corresponding default stack configuration attribute values or to pass data to recipes. The string should be in the following format:

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

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

Type: String

Required: No

DefaultAvailabilityZone

The stack's default Availability Zone. For more information, see Regions and Endpoints.

Type: String

Required: No

DefaultInstanceProfileArn

The ARN of an IAM profile that is the default profile for all of the stack's EC2 instances. For more information about IAM ARNs, see Using Identifiers.

Type: String

Required: No

DefaultOs

The stack's default operating system.

Type: String

Required: No

DefaultRootDeviceType

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

Type: String

Valid Values: `ebs | instance-store`

Required: No

DefaultSshKeyName

A default Amazon EC2 key pair for the stack's instances. You can override this value when you create or update an instance.

Type: String

Required: No

DefaultSubnetId

The default subnet ID; applicable only if the stack is running in a VPC.

Type: String

Required: No

HostnameTheme

The stack host name theme, with spaces replaced by underscores.

Type: String

Required: No

Name

The stack name.

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

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

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. 164) 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

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

TimeBasedAutoScalingConfiguration

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

Contents

AutoScalingSchedule

A `WeeklyAutoScalingSchedule` object with the instance schedule.

Type: WeeklyAutoScalingSchedule (p. 193) object

Required: No

InstanceId

The instance ID.

Type: String

Required: No

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

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

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, standard or PIOPS.

Type: String

Required: No

VolumeConfiguration

Describes an Amazon EBS volume configuration.

Contents

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:

- `standard` - Magnetic
- `io1` - Provisioned IOPS (SSD)
- `gp2` - General Purpose (SSD)

Type: String
Required: No

WeeklyAutoScalingSchedule

Describes a time-based instance's auto scaling schedule. The schedule consists of a set of key-value pairs.

- The key is the time period (a UTC hour) and must be an integer from 0 - 23.
- The value indicates whether the instance should be online or offline for the specified period, and must be set to "on" or "off"

The default setting for all time periods is off, so you use the following parameters primarily to specify the online periods. You don't have to explicitly specify offline periods unless you want to change an online period to an offline period.

The following example specifies that the instance should be online for four hours, from UTC 1200 - 1600. It will be off for the remainder of the day.

```
{ "12":"on", "13":"on", "14":"on", "15":"on" }
```

Contents

Friday
The schedule for Friday.
Type: String to String map
Required: No

Monday
The schedule for Monday.
Type: String to String map
Required: No

Saturday
The schedule for Saturday.
Type: String to String map
Required: No

Sunday
The schedule for Sunday.
Type: String to String map
Required: No

Thursday
The schedule for Thursday.
Type: String to String map
Required: No

Tuesday
The schedule for Tuesday.
Type: String to String map
Required: No

Wednesday
The schedule for Wednesday.
Type: String to String map
Required: No

Common Parameters

The following table lists the parameters that all actions use for signing Signature Version 4 requests. Any action-specific parameters are listed in the topic for that action. To view sample requests, see Examples of Signed Signature Version 4 Requests or Signature Version 4 Test Suite in the *Amazon Web Services General Reference*.

Action
The action to be performed.

Type: string

Required: Yes

Version
The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm
The hash algorithm that you used to create the request signature.

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

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential
The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see Task 2: Create a String to Sign for Signature Version 4 in the *Amazon Web Services General Reference*.

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

Type: string

Required: Conditional

X-Amz-Date

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

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Handling Dates in Signature Version 4 in the *Amazon Web Services General Reference*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service. For a list of services that support AWS Security Token Service, go to Using Temporary Security Credentials to Access AWS in *Using Temporary Security Credentials*.

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

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

Throttling
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