# AWS OpsWorks

## API Reference

## API Version 2013-02-18

# AWS OpsWorks: API Reference

# Table of Contents

# Welcome

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

AWS OpsWorks 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 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 supports only one endpoint, opsworks.us-east-1.amazonaws.com (HTTPS), so you must connect to that endpoint. You can then use the API to direct AWS OpsWorks to create stacks in any AWS Region.

**Chef Versions**

When you call CreateStack (p. 33), CloneStack (p. 11), or UpdateStack (p. 124) we recommend you use the `ConfigurationManager` parameter to specify the Chef version, 0.9, 11.4, or 11.10. The default value is currently 11.10. For more information, see Chef Versions.

> **Note**
> You can still specify Chef 0.9 for your stack, but new features are not available for Chef 0.9 stacks, and support is scheduled to end on July 24, 2014. We do not recommend using Chef 0.9 for new stacks, and we recommend migrating your existing Chef 0.9 stacks to Chef 11.10 as soon as possible.

This document was last updated on August 19, 2014.

# Actions

The following actions are supported:

# 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. 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

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

## Request Parameters

For information about the common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**InstanceId**
The instance ID.

Type: String

Required: No

**VolumeId**
The volume ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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. 93). 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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**ElasticIp**
The Elastic IP address.

Type: String

Required: Yes

**InstanceId**
The instance ID.

Type: String

Required: No

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**ElasticLoadBalancerName**
The Elastic Load Balancing instance's name.

Type: String

Required: Yes

**LayerId**
The ID of the layer that the Elastic Load Balancing instance is 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. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

HTTP Status Code: 400

# CloneStack

Creates a clone of a specified stack. For more information, see Clone a 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

```
{
    "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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String to String map

Valid Map Keys: `Color`

Required: No

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

Type: ChefConfiguration (p. 137) object

Required: No

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

Type: array of Strings

Required: No

**ClonePermissions**
Whether to clone the source stack's permissions.

Type: Boolean

Required: No

**ConfigurationManager**
The configuration manager. When you clone a stack we recommend that you use the configuration manager to specify the Chef version, 0.9, 11.4, or 11.10. The default value is currently 11.4.

Type: StackConfigurationManager (p. 174) object

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. 169) object

Required: No

**CustomJson**
A string that contains user-defined, custom JSON. It is used to override the corresponding default stack configuration JSON values. The string should be in the following format and must escape characters such as "".:

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

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

Type: String

Required: No

**DefaultAvailabilityZone**

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

Type: String

Required: No

**DefaultInstanceProfileArn**

The 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 cloned stack's default operating system, which must be set to `Amazon Linux`, `Ubuntu 12.04 LTS`, or `Ubuntu 14.04 LTS`. The default option is `Amazon Linux`.

Type: String

Required: No

**DefaultRootDeviceType**

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

Type: String

Valid Values: `ebs | instance-store`

Required: No

**DefaultSshKeyName**

A default SSH key for the stack instances. You can override this value when you create or update an instance.

Type: String

Required: No

**DefaultSubnetId**

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

Type: String

Required: No

**HostnameTheme**

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

- `Baked_Goods`
- `Clouds`
- `European_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**

The cloned stack name.

Type: String

Required: No

**Region**

The cloned stack AWS region, such as "us-east-1". For more information about AWS regions, see Regions and Endpoints.

Type: String

Required: No

**ServiceRoleArn**

The stack AWS Identity and Access Management (IAM) role, which allows AWS OpsWorks 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 console, it creates the role for you. You can obtain an existing stack's IAM ARN programmatically by calling DescribePermissions (p. 70). For more information about IAM ARNs, see Using Identifiers.

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

Type: String

Required: Yes

**SourceStackId**

The source stack ID.

Type: String

Required: Yes

**UseCustomCookbooks**

Whether to use custom cookbooks.

Type: Boolean

Required: No

**UseOpsworksSecurityGroups**

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

AWS OpsWorks 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 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 does not associate built-in security groups with layers. You must create appropriate EC2 security groups and associate a security group with each layer that you create. However, you can still manually associate a built-in security group with a layer on creation; custom security groups are required only for those layers that need custom settings.

For more information, see Create a New Stack.

Type: Boolean

Required: No

**VpcId**

The ID of the VPC that the 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 infers the value of the other parameter. If you specify neither parameter, AWS OpsWorks 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 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

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

**StackId**
The cloned stack ID.

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**AppSource**
A `Source` object that specifies the app repository.

Type: Source (p. 169) object

Required: No

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

Type: String to String map

Valid Map Keys: `DocumentRoot | RailsEnv | AutoBundleOnDeploy`

Required: No

**DataSources**
The app's data source.

Type: array of DataSource (p. 141) objects

Required: No

**Description**
A description of the app.

Type: String

Required: No

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

Type: array of Strings

Required: No

**EnableSsl**
Whether to enable SSL for the app.

Type: Boolean

Required: No

**Environment**
An array of `EnvironmentVariable` objects that specify environment variables to be associated with the app. You can specify up to ten environment variables. After you deploy the app, these variables are defined on the associated app server instance.

> **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. 152) objects

Required: No

**Name**
The app name.

Type: String

Required: Yes

**Shortname**
The app's short name.

Type: String

Required: No

**SslConfiguration**
An `SslConfiguration` object with the SSL configuration.

Type: SslConfiguration (p. 171) object

Required: No

**StackId**
The stack ID.

Type: String

Required: Yes

**Type**
The app type. Each supported type is associated with a particular layer. For example, PHP applications are associated with a PHP layer. AWS OpsWorks deploys an application to those instances that are members of the corresponding layer.

Type: String

Valid Values: `java | rails | php | nodejs | static | other`

Required: Yes

# Response Syntax

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

# Response Elements

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

**AppId**
The app ID.

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

HTTP Status Code: 400

# CreateDeployment

Deploys a stack or app.

- App deployment generates a `deploy` event, which runs the associated recipes and passes them a JSON stack configuration object that includes information about the app.
- Stack deployment runs the `deploy` recipes but does not raise an event.

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"
    ],
    "StackId": "string"
}
```

## Request Parameters

For information about the common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String

Required: No

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

Type: DeploymentCommand (p. 144) object

Required: Yes

**Comment**

A user-defined comment.

Type: String

Required: No

**CustomJson**

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

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

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

Type: String

Required: No

**InstanceIds**

The instance IDs for the deployment targets.

Type: array of Strings

Required: No

**StackId**

The stack ID.

Type: String

Required: Yes

# Response Syntax

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

# Response Elements

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

**DeploymentId**

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

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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

```
{
    "AmiId": "string",
    "Architecture": "string",
    "AutoScalingType": "string",
    "AvailabilityZone": "string",
    "EbsOptimized": "boolean",
    "Hostname": "string",
    "InstallUpdatesOnBoot": "boolean",
    "InstanceType": "string",
    "LayerIds": [
        "string"
    ],
    "Os": "string",
    "RootDeviceType": "string",
    "SshKeyName": "string",
    "StackId": "string",
    "SubnetId": "string",
    "VirtualizationType": "string"
}
```

## Request Parameters

For information about the common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**AmiId**
A custom AMI ID to be used to create the instance. The AMI should be based on one of the standard AWS OpsWorks AMIs: Amazon Linux, Ubuntu 12.04 LTS, or Ubuntu 14.04 LTS. For more information, see Instances

Type: String

Required: No

**Architecture**
The instance architecture. The default option is `x86_64`. Instance types do not necessarily support both architectures. For a list of the architectures that are supported by the different instance types, see Instance Families and Types.

Type: String

Valid Values: `x86_64 | i386`

Required: No

**AutoScalingType**

The instance auto scaling type, which has three possible values:

- **AlwaysRunning**: A 24/7 instance, which is not affected by auto scaling.
- **TimeBasedAutoScaling**: A time-based auto scaling instance, which is started and stopped based on a specified schedule. To specify the schedule, call SetTimeBasedAutoScaling (p. 103).
- **LoadBasedAutoScaling**: A load-based auto scaling instance, which is started and stopped based on load metrics. To use load-based auto scaling, you must enable it for the instance layer and configure the thresholds by calling SetLoadBasedAutoScaling (p. 99).

Type: String

Valid Values: `load | timer`

Required: No

**AvailabilityZone**

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

Type: String

Required: No

**EbsOptimized**

Whether to create an Amazon EBS-optimized instance.

Type: Boolean

Required: No

**Hostname**

The instance host name.

Type: String

Required: No

**InstallUpdatesOnBoot**

Whether to install operating system and package updates when the instance boots. The default value is `true`. To control when updates are installed, set this value to `false`. You must then update your instances manually by using CreateDeployment (p. 21) 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

**InstanceType**

The instance type. AWS OpsWorks supports all instance types except Cluster Compute, Cluster GPU, and High Memory Cluster. For more information, see Instance Families and Types. The parameter values that you use to specify the various types are in the API Name column of the Available Instance Types table.

Type: String

Required: Yes

**LayerIds**

An array that contains the instance layer IDs.

Type: array of Strings

Required: Yes

**Os**

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

- Standard operating systems: `Amazon Linux`, `Ubuntu 12.04 LTS`, or `Ubuntu 14.04 LTS`.
- Custom AMIs: `Custom`

The default option is `Amazon Linux`. If you set this parameter to `Custom`, you must use the CreateInstance (p. 24) action's AmiId parameter to specify the custom AMI that you want to use. For more information on the standard operating systems, see Operating SystemsFor more information on how to use custom AMIs with OpsWorks, see Using Custom AMIs.

Type: String

Required: No

**RootDeviceType**

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

Type: String

Valid Values: `ebs | instance-store`

Required: No

**SshKeyName**

The instance SSH key name.

Type: String

Required: No

**StackId**

The stack ID.

Type: String

Required: Yes

**SubnetId**

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

Type: String

Required: No

**VirtualizationType**

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

Type: String

Required: No

# Response Syntax

```
{
```

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

# Response Elements

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

**InstanceId**
The instance ID.

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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",
    "CustomRecipes": {
        "Configure": [
            "string"
        ],
        "Deploy": [
            "string"
        ],
        "Setup": [
            "string"
        ],
        "Shutdown": [
            "string"
        ],
        "Undeploy": [
            "string"
        ]
    },
    "CustomSecurityGroupIds": [
        "string"
    ],
    "EnableAutoHealing": "boolean",
    "InstallUpdatesOnBoot": "boolean",
    "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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String to String map

Valid Map Keys: `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

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

Type: String

Required: No

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

Type: Recipes (p. 166) object

Required: No

**CustomSecurityGroupIds**

An array containing the layer custom security group IDs.

Type: array of Strings

Required: No

**EnableAutoHealing**

Whether to disable auto healing for the layer.

Type: Boolean

Required: No

**InstallUpdatesOnBoot**

Whether to install operating system and package updates when the instance boots. The default value is `true`. To control when updates are installed, set this value to `false`. You must then update your instances manually by using CreateDeployment (p. 21) 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

**Name**

The layer name, which is used by the console.

Type: String

Required: Yes

**Packages**

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

Type: array of Strings

Required: No

**Shortname**

The layer short name, which is used internally by AWS OpsWorks 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 '.'.

Type: String

Required: Yes

**StackId**

The layer stack ID.

Type: String

Required: Yes

**Type**

The layer type. A stack cannot have more than one built-in layer of the same type. It can have any number of custom layers. This parameter must be set to one of the following:

- custom: A custom layer
- db-master: A MySQL layer
- java-app: A Java App Server layer
- rails-app: A Rails App Server layer
- lb: An HAProxy layer
- memcached: A Memcached layer
- monitoring-master: A Ganglia layer
- nodejs-app: A Node.js App Server layer
- php-app: A PHP App Server layer
- web: A Static Web Server layer

Type: String

Valid Values: `java-app | lb | web | php-app | rails-app | nodejs-app | memcached | db-master | monitoring-master | custom`

Required: Yes

**UseEbsOptimizedInstances**
Whether to use Amazon EBS-optimized instances.

Type: Boolean

Required: No

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

Type: array of VolumeConfiguration (p. 178) objects

Required: No

# Response Syntax

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

# Response Elements

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

**LayerId**
The layer ID.

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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

```
{
    "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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**Attributes**

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

Type: String to String map

Valid Map Keys: `Color`

Required: No

**ChefConfiguration**

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

Type: ChefConfiguration (p. 137) object

Required: No

**ConfigurationManager**

The configuration manager. When you clone a stack we recommend that you use the configuration manager to specify the Chef version, 0.9, 11.4, or 11.10. The default value is currently 11.4.

Type: StackConfigurationManager (p. 174) object

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. 169) object

Required: No

**CustomJson**

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

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

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

Type: String

Required: No

**DefaultAvailabilityZone**

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

Type: String

Required: No

**DefaultInstanceProfileArn**

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

Type: String

Required: Yes

**DefaultOs**

The stack's default operating system, which must be set to `Amazon Linux`, `Ubuntu 12.04 LTS`, or `Ubuntu 14.04 LTS`. The default option is `Amazon Linux`.

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. The default option is `instance-store`. For more information, see Storage for the Root Device.

Type: String

Valid Values: `ebs | instance-store`

Required: No

**DefaultSshKeyName**

A default SSH key for the stack instances. You can override this value when you create or update an instance.

Type: String

Required: No

**DefaultSubnetId**

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

Type: String

Required: No

**HostnameTheme**

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

- `Baked_Goods`
- `Clouds`
- `European_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**

The stack name.

Type: String

Required: Yes

**Region**

The stack AWS region, such as "us-east-1". For more information about Amazon regions, see Regions and Endpoints.

Type: String

Required: Yes

**ServiceRoleArn**

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

Type: String

Required: Yes

**UseCustomCookbooks**

Whether the stack uses custom cookbooks.

Type: Boolean

Required: No

**UseOpsworksSecurityGroups**

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

AWS OpsWorks 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 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 does not associate built-in security groups with layers. You must create appropriate EC2 security groups and associate a security group with each layer that you create. However, you can still manually associate a built-in security group with a layer on creation; custom security groups are required only for those layers that need custom settings.

For more information, see Create a New Stack.

Type: Boolean

Required: No

**VpcId**

The ID of the VPC that the stack is to be launched into. 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 infers the value of the other parameter. If you specify neither parameter, AWS OpsWorks 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 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

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

**StackId**

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

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ValidationException**

Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: Boolean

Required: No

**IamUserArn**
The user's IAM ARN.

Type: String

Required: Yes

**SshPublicKey**
The user's public SSH key.

Type: String

Required: No

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

Type: String

Required: No

# Response Syntax

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

# Response Elements

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

**IamUserArn**
The user's IAM ARN.

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**AppId**
The app ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

HTTP Status Code: 400

# DeleteInstance

Deletes a specified 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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**DeleteElasticIp**
Whether to delete the instance Elastic IP address.

Type: Boolean

Required: No

**DeleteVolumes**
Whether to delete the instance's Amazon EBS volumes.

Type: Boolean

Required: No

**InstanceId**
The instance ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

HTTP Status Code: 400

# DeleteLayer

Deletes a specified layer. You must first stop and then delete all associated 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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**LayerId**
The layer ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

HTTP Status Code: 400

# DeleteStack

Deletes a specified stack. You must first delete all instances, layers, and apps. 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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**StackId**
The stack ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**IamUserArn**
The user's IAM 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. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**ElasticIp**
The Elastic IP address.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**RdsDbInstanceArn**
The Amazon RDS instance's ARN.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**VolumeId**
The volume ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: array of Strings

Required: No

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

Type: String

Required: No

## Response Syntax

```
{
    "Apps": [
        {
            "AppId": "string",
            "AppSource": {
                "Password": "string",
```

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

# Response Elements

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

**Apps**

An array of App objects that describe the specified apps.

Type: array of App (p. 134) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: array of Strings

Required: No

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

Type: String

Required: No

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

Type: String

Required: No

# Response Syntax

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

# Response Elements

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

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

Type: array of Command (p. 138) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**AppId**
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**
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**
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

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

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

Type: array of Deployment (p. 142) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String

Required: No

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

Type: array of Strings

Required: No

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

Type: String

Required: No

# Response Syntax

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

# Response Elements

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

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

Type: array of ElasticIp (p. 151) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: array of Strings

Required: No

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

Type: String

Required: No

## Response Syntax

```
{
    "ElasticLoadBalancers": [
        {
            "AvailabilityZones": [
                "string"
            ],
            "DnsName": "string",
            "Ec2InstanceIds": [
```

```
                "string"
            ],
            "ElasticLoadBalancerName": "string",
            "LayerId": "string",
            "Region": "string",
            "StackId": "string",
            "SubnetIds": [
                "string"
            ],
            "VpcId": "string"
        }
    ]
}
```

# Response Elements

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

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

Type: array of ElasticLoadBalancer (p. 151) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: array of Strings

Required: No

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

Type: String

Required: No

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

Type: String

Required: No

# Response Syntax

```
{
    "Instances": [
        {
            "AmiId": "string",
            "Architecture": "string",
            "AutoScalingType": "string",
            "AvailabilityZone": "string",
            "CreatedAt": "string",
            "EbsOptimized": "boolean",
            "Ec2InstanceId": "string",
            "ElasticIp": "string",
            "Hostname": "string",
            "InstallUpdatesOnBoot": "boolean",
            "InstanceId": "string",
            "InstanceProfileArn": "string",
            "InstanceType": "string",
            "LastServiceErrorId": "string",
            "LayerIds": [
                "string"
            ],
            "Os": "string",
            "PrivateDns": "string",
            "PrivateIp": "string",
            "PublicDns": "string",
            "PublicIp": "string",
            "RootDeviceType": "string",
            "RootDeviceVolumeId": "string",
            "SecurityGroupIds": [
                "string"
            ],
            "SshHostDsaKeyFingerprint": "string",
            "SshHostRsaKeyFingerprint": "string",
            "SshKeyName": "string",
            "StackId": "string",
            "Status": "string",
            "SubnetId": "string",
            "VirtualizationType": "string"
        }
    ]
}
```

# Response Elements

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

**Instances**

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

Type: array of Instance (p. 154) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: array of Strings

Required: No

**StackId**
The stack ID.

Type: String

Required: No

## Response Syntax

```
{
    "Layers": [
        {
            "Attributes":
                {
                    "string" :
                        "string"
```

```
        },
    "AutoAssignElasticIps": "boolean",
    "AutoAssignPublicIps": "boolean",
    "CreatedAt": "string",
    "CustomInstanceProfileArn": "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",
    "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

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

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

Type: array of Layer (p. 159) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**LayerIds**

An array of layer IDs.

Type: array of Strings

Required: Yes

## Response Syntax

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

```
                "IgnoreMetricsTime": "number",
                "InstanceCount": "number",
                "LoadThreshold": "number",
                "MemoryThreshold": "number",
                "ThresholdsWaitTime": "number"
            }
        }
    ]
}
```

# Response Elements

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

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

Type: array of LoadBasedAutoScalingConfiguration (p. 162) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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

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

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

Type: SelfUserProfile (p. 168) object

# 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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**IamUserArn**
The user's IAM ARN. For more information about IAM ARNs, see Using Identifiers.

Type: String

Required: No

**StackId**
The stack ID.

Type: String

Required: No

## Response Syntax

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

# Response Elements

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

**Permissions**

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

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

Type: array of Permission (p. 163) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**

Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**

Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String

Required: No

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

Type: array of Strings

Required: No

**StackId**
The stack ID.

Type: String

Required: No

# Response Syntax

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

# Response Elements

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

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

Type: array of RaidArray (p. 164) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: array of Strings

Required: No

**StackId**
The 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

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

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

Type: array of RdsDbInstance (p. 165) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

HTTP Status Code: 400

# DescribeServiceErrors

Describes AWS OpsWorks 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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String

Required: No

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

Type: array of Strings

Required: No

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

Type: String

Required: No

## Response Syntax

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

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

# Response Elements

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

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

Type: array of ServiceError (p. 169) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**StackId**
The stack ID.

Type: String

Required: Yes

## Response Syntax

```
{
    "StackSummary": {
        "AppsCount": "number",
        "Arn": "string",
        "InstancesCount": {
            "Booting": "number",
            "ConnectionLost": "number",
            "Online": "number",
            "Pending": "number",
            "Rebooting": "number",
            "Requested": "number",
            "RunningSetup": "number",
            "SetupFailed": "number",
            "ShuttingDown": "number",
            "StartFailed": "number",
            "Stopped": "number",
            "Stopping": "number",
            "Terminated": "number",
            "Terminating": "number"
        },
```

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

# Response Elements

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

**StackSummary**
A `StackSummary` object that contains the results.

Type: StackSummary (p. 174) object

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**StackIds**

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

Type: array of Strings

Required: No

## Response Syntax

```
{
    "Stacks": [
        {
            "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

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

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

Type: array of Stack (p. 171) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**InstanceIds**

An array of instance IDs.

Type: array of Strings

Required: Yes

## Response Syntax

```
{
    "TimeBasedAutoScalingConfigurations": [
        {
            "AutoScalingSchedule": {
                "Friday":
                    {
                        "string" :
                            "string"
                    },
                "Monday":
                    {
                        "string" :
                            "string"
                    },
                "Saturday":
```

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

# Response Elements

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

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

Type: array of TimeBasedAutoScalingConfiguration (p. 175) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**IamUserArns**
An array of IAM 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

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

**UserProfiles**
A `Users` object that describes the specified users.

Type: array of UserProfile (p. 175) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String

Required: No

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

Type: String

Required: No

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

Type: String

Required: No

**VolumeIds**
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

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

**Volumes**
An array of volume IDs.

Type: array of Volume (p. 176) objects

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**ElasticLoadBalancerName**
The Elastic Load Balancing instance's name.

Type: String

Required: Yes

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

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**ElasticIp**
The Elastic IP address.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**LayerId**
The layer ID.

Type: String

Required: Yes

## Response Syntax

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

## Response Elements

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

**Hostname**
The generated host name.

Type: String

**LayerId**
The layer ID.

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**InstanceId**
The instance ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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. 46). 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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**ElasticIp**
The Elastic IP address.

Type: String

Required: Yes

**StackId**
The stack ID.

Type: String

Required: Yes

## Response Syntax

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

## Response Elements

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

**ElasticIp**
The Elastic IP address.

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**DbPassword**
The database password.

Type: String

Required: Yes

**DbUser**
The database's master user name.

Type: String

Required: Yes

**RdsDbInstanceArn**
The Amazon RDS instance's ARN.

Type: String

Required: Yes

**StackId**
The stack ID.

Type: String

Required: Yes

## Response Elements

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

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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. 48). 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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**Ec2VolumeId**
The Amazon EBS volume ID.

Type: String

Required: No

**StackId**
The stack ID.

Type: String

Required: Yes

## Response Syntax

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

## Response Elements

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

**VolumeId**
The volume ID.

Type: String

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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

## Request Parameters

For information about the common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**DownScaling**

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

Type: AutoScalingThresholds (p. 136) object

Required: No

**Enable**

Enables load-based auto scaling for the layer.

Type: Boolean

Required: No

**LayerId**
The layer ID.

Type: String

Required: Yes

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

Type: AutoScalingThresholds (p. 136) 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. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: Boolean

Required: No

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

Type: Boolean

Required: No

**IamUserArn**
The user's IAM ARN.

Type: String

Required: Yes

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

- `deny`
- `show`
- `deploy`
- `manage`
- `iam_only`

For more information on the permissions associated with these levels, see Managing User Permissions

Type: String

Required: No

**StackId**
The stack ID.

Type: String

Required: Yes

# Response Elements

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

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**AutoScalingSchedule**
An `AutoScalingSchedule` with the instance schedule.

Type: WeeklyAutoScalingSchedule (p. 179) object

Required: No

**InstanceId**
The instance ID.

Type: String

Required: Yes

# Response Elements

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

# Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**InstanceId**
The instance ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**StackId**
The stack ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**InstanceId**
The instance ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**StackId**
The stack ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**VolumeId**
The volume ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**AppId**
The app ID.

Type: String

Required: Yes

**AppSource**
A `Source` object that specifies the app repository.

Type: Source (p. 169) object

Required: No

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

Type: String to String map

Valid Map Keys: `DocumentRoot | RailsEnv | AutoBundleOnDeploy`

Required: No

**DataSources**
The app's data sources.

Type: array of DataSource (p. 141) objects

Required: No

**Description**
A description of the app.

Type: String

Required: No

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

Type: array of Strings

Required: No

**EnableSsl**
Whether SSL is enabled for the app.

Type: Boolean

Required: No

**Environment**
An array of `EnvironmentVariable` objects that specify environment variables to be associated with the app. You can specify up to ten environment variables. After you deploy the app, these variables are defined on the associated app server instances.

**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. 152) objects

Required: No

**Name**
The app name.

Type: String

Required: No

**SslConfiguration**
An `SslConfiguration` object with the SSL configuration.

Type: SslConfiguration (p. 171) object

Required: No

**Type**
The app type.

Type: String

Valid Values: `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. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**ElasticIp**
The address.

Type: String

Required: Yes

**Name**
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. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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

```
{
    "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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**AmiId**

A custom AMI ID to be used to create the instance. The AMI should be based on one of the standard AWS OpsWorks AMIs: Amazon Linux, Ubuntu 12.04 LTS, or Ubuntu 14.04 LTS. For more information, see Instances

Type: String

Required: No

**Architecture**

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

Type: String

Valid Values: `x86_64 | i386`

Required: No

**AutoScalingType**

The instance's auto scaling type, which has three possible values:

- **AlwaysRunning**: A 24/7 instance, which is not affected by auto scaling.

- **TimeBasedAutoScaling**: A time-based auto scaling instance, which is started and stopped based on a specified schedule.
- **LoadBasedAutoScaling**: A load-based auto scaling instance, which is started and stopped based on load metrics.

Type: String

Valid Values: `load | timer`

Required: No

**EbsOptimized**

Whether this is an Amazon EBS-optimized instance.

Type: Boolean

Required: No

**Hostname**

The instance host name.

Type: String

Required: No

**InstallUpdatesOnBoot**

Whether to install operating system and package updates when the instance boots. The default value is `true`. To control when updates are installed, set this value to `false`. You must then update your instances manually by using CreateDeployment (p. 21) 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

**InstanceId**

The instance ID.

Type: String

Required: Yes

**InstanceType**

The instance type. AWS OpsWorks supports all instance types except Cluster Compute, Cluster GPU, and High Memory Cluster. For more information, see Instance Families and Types. The parameter values that you use to specify the various types are in the API Name column of the Available Instance Types table.

Type: String

Required: No

**LayerIds**

The instance's layer IDs.

Type: array of Strings

Required: No

**Os**

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

- Standard operating systems: `Amazon Linux`, `Ubuntu 12.04 LTS`, or `Ubuntu 14.04 LTS`.
- Custom AMIs: `Custom`

The default option is `Amazon Linux`. If you set this parameter to `Custom`, you must use the CreateInstance (p. 24) action's AmiId parameter to specify the custom AMI that you want to use. For more information on the standard operating systems, see Operating SystemsFor more information on how to use custom AMIs with OpsWorks, see Using Custom AMIs.

Type: String

Required: No

**SshKeyName**

The instance SSH 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. 183).

**ResourceNotFoundException**

Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**

Indicates that a request was invalid.

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",
    "CustomRecipes": {
        "Configure": [
            "string"
        ],
        "Deploy": [
            "string"
        ],
        "Setup": [
            "string"
        ],
        "Shutdown": [
            "string"
        ],
        "Undeploy": [
            "string"
        ]
    },
    "CustomSecurityGroupIds": [
        "string"
    ],
    "EnableAutoHealing": "boolean",
    "InstallUpdatesOnBoot": "boolean",
    "LayerId": "string",
    "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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String to String map

Valid Map Keys: `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

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

Type: String

Required: No

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

Type: Recipes (p. 166) object

Required: No

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

Type: array of Strings

Required: No

**EnableAutoHealing**

Whether to disable auto healing for the layer.

Type: Boolean

Required: No

**InstallUpdatesOnBoot**

Whether to install operating system and package updates when the instance boots. The default value is `true`. To control when updates are installed, set this value to `false`. You must then update your instances manually by using CreateDeployment (p. 21) to run the `update_dependencies` stack command or manually running `yum` (Amazon Linux) or `apt-get` (Ubuntu) on the instances.

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

Type: Boolean

Required: No

**LayerId**

The layer ID.

Type: String

Required: Yes

**Name**

The layer name, which is used by the console.

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, which is used internally by AWS OpsWorksand 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/.

Type: String

Required: No

**UseEbsOptimizedInstances**

Whether to use Amazon EBS-optimized instances.

Type: Boolean

Required: No

**VolumeConfigurations**

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

Type: array of VolumeConfiguration (p. 178) 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. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**SshPublicKey**
The user's SSH public key.

Type: String

Required: No

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**DbPassword**
The database password.

Type: String

Required: No

**DbUser**
The master user name.

Type: String

Required: No

**RdsDbInstanceArn**
The Amazon RDS instance's ARN.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**

Indicates that a request was invalid.

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

```
{
    "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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

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

Type: String to String map

Valid Map Keys: `Color`

Required: No

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

Type: ChefConfiguration (p. 137) object

Required: No

**ConfigurationManager**
The configuration manager. When you clone a stack we recommend that you use the configuration manager to specify the Chef version, 0.9, 11.4, or 11.10. The default value is currently 11.4.

Type: StackConfigurationManager (p. 174) object

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. 169) object

Required: No

**CustomJson**
A string that contains user-defined, custom JSON. It is used to override the corresponding default stack configuration JSON values. The string should be in the following format and must escape characters such as "".:

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

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

Type: String

Required: No

**DefaultAvailabilityZone**
The stack's default Availability Zone, which must be in the specified region. For more information, see Regions and Endpoints. If you also specify a value for `DefaultSubnetId`, the subnet must be in the same zone. For more information, see CreateStack (p. 33).

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, which must be set to `Amazon Linux`, `Ubuntu 12.04 LTS`, or `Ubuntu 14.04 LTS`. The default option is `Amazon Linux`.

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 SSH key for the stack instances. You can override this value when you create or update an instance.

Type: String

Required: No

**DefaultSubnetId**

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

Type: String

Required: No

**HostnameTheme**

The stack's new host name theme, with spaces 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`
- `European_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**
The stack's new name.

Type: String

Required: No

**ServiceRoleArn**
The stack AWS Identity and Access Management (IAM) role, which allows AWS OpsWorks 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.

> **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 stack's current service role ARN, if you prefer, but you must do so explicitly.

Type: String

Required: No

**StackId**
The stack ID.

Type: String

Required: Yes

**UseCustomCookbooks**
Whether the stack uses custom cookbooks.

Type: Boolean

Required: No

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

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

- True - AWS OpsWorks 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 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

# 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. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**AllowSelfManagement**
Whether users can specify their own SSH public key through the My Settings page. For more information, see Managing User Permissions.

Type: Boolean

Required: No

**IamUserArn**
The user IAM ARN.

Type: String

Required: Yes

**SshPublicKey**
The user's new SSH public key.

Type: String

Required: No

**SshUsername**
The user's SSH user name. The allowable characters are [a-z], [A-Z], [0-9], '-', and '_'. If the specified name includes other punctuation marks, AWS OpsWorks removes them. For example, `my.name` will be changed to `myname`. If you do not specify an SSH user name, AWS OpsWorks 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. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**
Indicates that a request was invalid.

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 common parameters that all actions use, see Common Parameters (p. 181).

The request accepts the following data in JSON format.

**MountPoint**
The new mount point.

Type: String

Required: No

**Name**
The new name.

Type: String

Required: No

**VolumeId**
The volume ID.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 183).

**ResourceNotFoundException**
Indicates that a resource was not found.

HTTP Status Code: 400

**ValidationException**

Indicates that a request was invalid.

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 the response is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

# App

## Description

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. 169) object

Required: No

**Attributes**
The stack attributes.

Type: String to String map

Valid Map Keys: `DocumentRoot | RailsEnv | AutoBundleOnDeploy`

Required: No

**CreatedAt**
When the app was created.

Type: String

Required: No

**DataSources**
The app's data sources.

Type: array of DataSource (p. 141) 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. You can specify up to ten environment variables. After you deploy the app, these variables are defined on the associated app server instances.

Type: array of EnvironmentVariable (p. 152) 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. 171) object

Required: No

**StackId**
The app stack ID.

Type: String

Required: No

**Type**
The app type.

Type: String

Valid Values: `java | rails | php | nodejs | static | other`

Required: No

# AutoScalingThresholds

## Description

Describes a load-based auto scaling upscaling or downscaling threshold configuration, which specifies when AWS OpsWorks starts or stops load-based instances.

## Contents

**CpuThreshold**
The CPU utilization threshold, as a percent of the available CPU.

Type: Double

Required: No

**IgnoreMetricsTime**
The amount of time (in minutes) after a scaling event occurs that AWS OpsWorks should ignore metrics and not raise any additional scaling events. For example, AWS OpsWorks 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 to not raise any scaling events long enough to get the new instances online.

Type: Number

Required: No

**InstanceCount**
The number of instances to add or remove when the load exceeds a threshold.

Type: Number

Required: No

**LoadThreshold**
The load 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.

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: Number

Required: No

# ChefConfiguration

## Description

Describes the Chef configuration.

## Contents

**BerkshelfVersion**
The Berkshelf version.

Type: String

Required: No

**ManageBerkshelf**
Whether to enable Berkshelf.

Type: Boolean

Required: No

# CloneStackResult

## Description

Contains the response to a `CloneStack` request.

## Contents

**StackId**
The cloned stack ID.

Type: String

Required: No

# Command

## Description

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: Number

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

# CreateAppResult

## Description

Contains the response to a `CreateApp` request.

## Contents

**AppId**
The app ID.

Type: String

Required: No

# CreateDeploymentResult

## Description

Contains the response to a `CreateDeployment` request.

## Contents

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

Type: String

Required: No

# CreateInstanceResult

## Description

Contains the response to a `CreateInstance` request.

## Contents

**InstanceId**
The instance ID.

Type: String

Required: No

# CreateLayerResult

## Description

Contains the response to a `CreateLayer` request.

## Contents

**LayerId**
The layer ID.

Type: String

Required: No

# CreateStackResult

## Description

Contains the response to a `CreateStack` request.

## Contents

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

Type: String

Required: No

# CreateUserProfileResult

## Description

Contains the response to a `CreateUserProfile` request.

## Contents

**IamUserArn**
The user's IAM ARN.

Type: String

Required: No

# DataSource

## Description

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

## Description

Describes a deployment of a stack or app.

## Contents

**AppId**
The app ID.

Type: String

Required: No

**Command**
Used to specify a deployment operation.

Type: DeploymentCommand (p. 144) 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 is used to override the corresponding default stack configuration JSON values for stack. The string should be in the following format and must escape characters such as "".:

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

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

Type: String

Required: No

**DeploymentId**
The deployment ID.

Type: String

Required: No

**Duration**
The deployment duration.

Type: Number

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

## Description

Used to specify a deployment operation.

## Contents

**Args**

The arguments of those commands that take arguments. It should be set to a JSON object with the following format:

```
{"arg_name":["value1", "value2", ...]}
```

Type: String to 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.

For apps, the following commands are available:

- `deploy`: Deploy an app. 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 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 | deploy | rollback | start | stop | restart | undeploy`

Required: Yes

# DescribeAppsResult

## Description

Contains the response to a `DescribeApps` request.

## Contents

**Apps**
An array of `App` objects that describe the specified apps.

Type: array of App (p. 134) objects

Required: No

# DescribeCommandsResult

## Description

Contains the response to a `DescribeCommands` request.

## Contents

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

Type: array of Command (p. 138) objects

Required: No

# DescribeDeploymentsResult

## Description

Contains the response to a `DescribeDeployments` request.

## Contents

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

Type: array of Deployment (p. 142) objects

Required: No

# DescribeElasticIpsResult

## Description

Contains the response to a `DescribeElasticIps` request.

## Contents

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

Type: array of ElasticIp (p. 151) objects

Required: No

# DescribeElasticLoadBalancersResult

## Description

Contains the response to a `DescribeElasticLoadBalancers` request.

## Contents

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

Type: array of ElasticLoadBalancer (p. 151) objects

Required: No

# DescribeInstancesResult

## Description

Contains the response to a `DescribeInstances` request.

## Contents

**Instances**
An array of `Instance` objects that describe the instances.

Type: array of Instance (p. 154) objects

Required: No

# DescribeLayersResult

## Description

Contains the response to a `DescribeLayers` request.

## Contents

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

Type: array of Layer (p. 159) objects

Required: No

# DescribeLoadBasedAutoScalingResult

## Description

Contains the response to a `DescribeLoadBasedAutoScaling` request.

## Contents

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

Type: array of LoadBasedAutoScalingConfiguration (p. 162) objects

Required: No

# DescribeMyUserProfileResult

## Description

Contains the response to a `DescribeMyUserProfile` request.

## Contents

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

Type: SelfUserProfile (p. 168) object

Required: No

# DescribePermissionsResult

## Description

Contains the response to a `DescribePermissions` request.

## Contents

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

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

Type: array of Permission (p. 163) objects

Required: No

# DescribeRaidArraysResult

## Description

Contains the response to a `DescribeRaidArrays` request.

## Contents

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

Type: array of RaidArray (p. 164) objects

Required: No

# DescribeRdsDbInstancesResult

## Description

Contains the response to a `DescribeRdsDbInstances` request.

## Contents

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

Type: array of RdsDbInstance (p. 165) objects

Required: No

# DescribeServiceErrorsResult

## Description

Contains the response to a `DescribeServiceErrors` request.

## Contents

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

Type: array of ServiceError (p. 169) objects

Required: No

# DescribeStackSummaryResult

## Description

Contains the response to a `DescribeStackSummary` request.

## Contents

**StackSummary**
A `StackSummary` object that contains the results.

Type: StackSummary (p. 174) object

Required: No

# DescribeStacksResult

## Description

Contains the response to a `DescribeStacks` request.

## Contents

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

Type: array of Stack (p. 171) objects

Required: No

# DescribeTimeBasedAutoScalingResult

## Description

Contains the response to a `DescribeTimeBasedAutoScaling` request.

## Contents

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

Type: array of TimeBasedAutoScalingConfiguration (p. 175) objects

Required: No

# DescribeUserProfilesResult

## Description

Contains the response to a `DescribeUserProfiles` request.

## Contents

**UserProfiles**
A `Users` object that describes the specified users.

Type: array of UserProfile (p. 175) objects

Required: No

# DescribeVolumesResult

## Description

Contains the response to a `DescribeVolumes` request.

## Contents

**Volumes**
An array of volume IDs.

Type: array of Volume (p. 176) objects

Required: No

# ElasticIp

## Description

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

## Description

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

## Description

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. 49) 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

# GetHostnameSuggestionResult

## Description

Contains the response to a `GetHostnameSuggestion` request.

## Contents

**Hostname**
The generated host name.

Type: String

Required: No

**LayerId**
The layer ID.

Type: String

Required: No

# Instance

## Description

Describes an instance.

## Contents

**AmiId**
A custom AMI ID to be used to create the instance. The AMI should be based on one of the standard AWS OpsWorks APIs: Amazon Linux, Ubuntu 12.04 LTS, or Ubuntu 14.04 LTS. 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**
The instance's auto scaling type, which has three possible values:

- **AlwaysRunning**: A 24/7 instance, which is not affected by auto scaling.
- **TimeBasedAutoScaling**: A time-based auto scaling instance, which is started and stopped based on a specified schedule.
- **LoadBasedAutoScaling**: A load-based auto scaling instance, which is started and stopped based on load metrics.

Type: String

Valid Values: `load | timer`

Required: No

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

Type: String

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

**ElasticIp**
The instance Elastic IP address .

Type: String

Required: No

**Hostname**
The instance host name.

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. 21) 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

**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. AWS OpsWorks supports all instance types except Cluster Compute, Cluster GPU, and High Memory Cluster. For more information, see Instance Families and Types. The parameter values that specify the various types are in the API Name column of the Available Instance Types table.

Type: String

Required: No

**LastServiceErrorId**
The ID of the last service error. For more information, call DescribeServiceErrors (p. 76).

Type: String

Required: No

**LayerIds**
An array containing the instance layer IDs.

Type: array of Strings

Required: No

**Os**
The instance operating system.

Type: String

Required: No

**PrivateDns**
The instance private DNS name.

Type: String

Required: No

**PrivateIp**
The instance 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

**RootDeviceType**
The instance 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 DSA fingerprint.

Type: String

Required: No

**SshHostRsaKeyFingerprint**
The SSH key's RSA fingerprint.

Type: String

Required: No

**SshKeyName**
The instance SSH key name.

Type: String

Required: No

**StackId**
The stack ID.

Type: String

Required: No

**Status**
The instance status:

- `booting`
- `connection_lost`
- `online`
- `rebooting`
- `requested`
- `running_setup`
- `setup_failed`
- `start_failed`
- `stopped`
- `terminated`
- `terminating`

Type: String

Required: No

**SubnetId**
The instance's subnet ID, if the stack is running in a VPC.

Type: String

Required: No

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

Type: String

Valid Values: `paravirtual | hvm`

Required: No

# InstancesCount

## Description

Describes how many instances a stack has for each status.

## Contents

**Booting**
The number of instances with `booting` status.

Type: Number

Required: No

**ConnectionLost**
The number of instances with `connection_lost` status.

Type: Number

Required: No

**Online**
The number of instances with `online` status.

Type: Number

Required: No

**Pending**
The number of instances with `pending` status.

Type: Number

Required: No

**Rebooting**
The number of instances with `rebooting` status.

Type: Number

Required: No

**Requested**
The number of instances with `requested` status.

Type: Number

Required: No

**RunningSetup**
The number of instances with `running_setup` status.

Type: Number

Required: No

**SetupFailed**
The number of instances with `setup_failed` status.

Type: Number

Required: No

**ShuttingDown**
The number of instances with `shutting_down` status.

Type: Number

Required: No

**StartFailed**
The number of instances with `start_failed` status.

Type: Number

Required: No

**Stopped**
The number of instances with `stopped` status.

Type: Number

Required: No

**Stopping**
The number of instances with `stopping` status.

Type: Number

Required: No

**Terminated**
The number of instances with `terminated` status.

Type: Number

Required: No

**Terminating**
The number of instances with `terminating` status.

Type: Number

Required: No

# Layer

## Description

Describes a layer.

## Contents

**Attributes**
The layer attributes.

Type: String to String map

Valid Map Keys: `EnableHaproxyStats | HaproxyStatsUrl | HaproxyStatsUser | HaproxyStatsPassword | HaproxyHealthCheckUrl | HaproxyHealthCheckMethod | MysqlRootPassword | MysqlRootPasswordUbiquitous | GangliaUrl | GangliaUser | GangliaPassword | MemcachedMemory | NodejsVersion | RubyVersion | Rubygems-`

`Version | 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

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

Type: Recipes (p. 166) object

Required: No

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

Type: array of Strings

Required: No

**DefaultRecipes**
AWS OpsWorks supports five lifecycle events, **setup**, **configuration**, **deploy**, **undeploy**, and **shutdown**. For each layer, AWS OpsWorks 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 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. 166) 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. 21) 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

**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, which must be one of the following:

- Custom

- GangliaMonitoringMaster
- HaProxy
- MemcachedServer
- MySqlMaster
- NodeJsAppServer
- PhpAppServer
- RailsAppServer
- WebServer

Type: String

Valid Values: `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. 178) objects

Required: No

# LoadBasedAutoScalingConfiguration

## Description

Describes a layer's load-based auto scaling configuration.

## Contents

**DownScaling**
A `LoadBasedAutoscalingInstruction` object that describes the downscaling configuration, which defines how and when AWS OpsWorks reduces the number of instances.

Type: AutoScalingThresholds (p. 136) 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**
A `LoadBasedAutoscalingInstruction` object that describes the upscaling configuration, which defines how and when AWS OpsWorks increases the number of instances.

Type: AutoScalingThresholds (p. 136) object

Required: No

# Permission

## Description

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

## Description

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: Number

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: Number

Required: No

**RaidArrayId**
The array ID.

Type: String

Required: No

**RaidLevel**
The RAID level.

Type: Number

Required: No

**Size**
The array's size.

Type: Number

Required: No

**StackId**
The stack ID.

Type: String

Required: No

**VolumeType**
The volume type, standard or PIOPS.

Type: String

Required: No

# RdsDbInstance

## Description

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**
The database password.

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 was unable to discover the Amazon RDS instance. AWS OpsWorks 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 that the instance is registered with.

Type: String

Required: No

# Recipes

## Description

AWS OpsWorks supports five lifecycle events, **setup**, **configuration**, **deploy**, **undeploy**, and **shutdown**. For each layer, AWS OpsWorks 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 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

# RegisterElasticIpResult

## Description

Contains the response to a `RegisterElasticIp` request.

## Contents

**ElasticIp**
The Elastic IP address.

Type: String

Required: No

# RegisterVolumeResult

## Description

Contains the response to a `RegisterVolume` request.

## Contents

**VolumeId**
The volume ID.

Type: String

Required: No

# SelfUserProfile

## Description

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

## Description

Describes an AWS OpsWorks 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

# Source

## Description

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**
This 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.

Type: String

Required: No

**Revision**
The application's version. AWS OpsWorks 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**
The repository's SSH key.

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

## Description

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

## Description

Describes a stack.

## Contents

**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. 137) object

Required: No

**ConfigurationManager**
The configuration manager.

Type: StackConfigurationManager (p. 174) object

Required: No

**CreatedAt**
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. 169) object

Required: No

**CustomJson**
A string that contains user-defined, custom JSON. It is used to override the corresponding default stack configuration JSON values. The string should be in the following format and must escape characters such as "".:

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

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

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, which must be set to `Amazon Linux`, `Ubuntu 12.04 LTS`, or `Ubuntu 14.04 LTS`. The default option is `Amazon Linux`.

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 SSH key 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, 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 "us-east-1". 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 built-in security groups with the stack's layers.

Type: Boolean

Required: No

**VpcId**
The VPC ID, if the stack is running in a VPC.

Type: String

Required: No

# StackConfigurationManager

## Description

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 0.9, 11.4, or 11.10. The default value is 11.4.

Type: String

Required: No

# StackSummary

## Description

Summarizes the number of layers, instances, and apps in a stack.

## Contents

**AppsCount**
The number of apps.

Type: Number

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. 158) object

Required: No

**LayersCount**
The number of layers.

Type: Number

Required: No

**Name**
The stack name.

Type: String

Required: No

**StackId**
The stack ID.

Type: String

Required: No

# TimeBasedAutoScalingConfiguration

## Description

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

## Contents

**AutoScalingSchedule**
A `WeeklyAutoScalingSchedule` object with the instance schedule.

Type: WeeklyAutoScalingSchedule (p. 179) object

Required: No

**InstanceId**
The instance ID.

Type: String

Required: No

# UserProfile

## Description

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

## Description

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: Number

Required: No

**MountPoint**
The volume mount point. For example "/dev/sdh".

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: Number

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

## Description

Describes an Amazon EBS volume configuration.

## Contents

**Iops**
For PIOPS volumes, the IOPS per disk.

Type: Number

Required: No

**MountPoint**
The volume mount point. For example "/dev/sdh".

Type: String

Required: Yes

**NumberOfDisks**
The number of disks in the volume.

Type: Number

Required: Yes

**RaidLevel**
The volume RAID level.

Type: Number

Required: No

**Size**
The volume size.

Type: Number

Required: Yes

**VolumeType**
The volume type, standard or PIOPS.

Type: String

Required: No

# WeeklyAutoScalingSchedule

## Description

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

This section lists the request parameters that all actions use. Any action-specific parameters are listed in the topic for the action.

**Action**
The action to be performed.

Default: None

Type: string

Required: Yes

**AuthParams**
The parameters that are required to authenticate a Conditional request. Contains:

- AWSAccessKeyID
- SignatureVersion
- Timestamp
- Signature

Default: None

Required: Conditional

**AWSAccessKeyId**
The access key ID that corresponds to the secret access key that you used to sign the request.

Default: None

Type: string

Required: Yes

**Expires**
The date and time when the request signature expires, expressed in the format YYYY-MM-DDThh:mm:ssZ, as specified in the ISO 8601 standard.

Condition: Requests must include either *Timestamp* or *Expires*, but not both.

Default: None

Type: string

Required: Conditional

**SecurityToken**
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**.

Default: None

Type: string

Required: No

**Signature**
The digital signature that you created for the request. For information about generating a signature, go to the service's developer documentation.

Default: None

Type: string

Required: Yes

**SignatureMethod**
The hash algorithm that you used to create the request signature.

Default: None

Type: string

Valid Values: `HmacSHA256 | HmacSHA1`

Required: Yes

**SignatureVersion**
The signature version you use to sign the request. Set this to the value that is recommended for your service.

Default: None

Type: string

Required: Yes

**Timestamp**
The date and time when the request was signed, expressed in the format YYYY-MM-DDThh:mm:ssZ, as specified in the ISO 8601 standard.

Condition: Requests must include either *Timestamp* or *Expires*, but not both.

Default: None

Type: string

Required: Conditional

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

Default: None

Type: string

Required: Yes

# 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