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# Amazon Simple Systems Management Service

## API Reference

**API Version 2014-11-06**



## **Amazon Simple Systems Management Service: API Reference**

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# Welcome

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Amazon EC2 Systems Manager is a collection of capabilities that helps you automate management tasks such as collecting system inventory, applying operating system (OS) patches, automating the creation of Amazon Machine Images (AMIs), and configuring operating systems (OSs) and applications at scale. Systems Manager works with managed instances: Amazon EC2 instances and servers or virtual machines (VMs) in your on-premises environment that are configured for Systems Manager. This references is intended to be used with the EC2 Systems Manager User Guide ([Linux](#)) ([Windows](#)). To get started, verify prerequisites and configure managed instances ([Linux](#)) ([Windows](#)). This document was last published on December 9, 2016.

# Actions

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The following actions are supported:

- [AddTagsToResource](#) (p. 4)
- [CancelCommand](#) (p. 6)
- [CreateActivation](#) (p. 8)
- [CreateAssociation](#) (p. 10)
- [CreateAssociationBatch](#) (p. 14)
- [CreateDocument](#) (p. 18)
- [CreateMaintenanceWindow](#) (p. 20)
- [DeleteActivation](#) (p. 22)
- [DeleteAssociation](#) (p. 23)
- [DeleteDocument](#) (p. 25)
- [DeleteMaintenanceWindow](#) (p. 26)
- [DeleteParameter](#) (p. 27)
- [DeregisterManagedInstance](#) (p. 28)
- [DeregisterTargetFromMaintenanceWindow](#) (p. 29)
- [DeregisterTaskFromMaintenanceWindow](#) (p. 31)
- [DescribeActivations](#) (p. 33)
- [DescribeAssociation](#) (p. 35)
- [DescribeAutomationExecutions](#) (p. 38)
- [DescribeDocument](#) (p. 40)
- [DescribeDocumentPermission](#) (p. 42)
- [DescribeEffectiveInstanceAssociations](#) (p. 44)
- [DescribeInstanceAssociationsStatus](#) (p. 46)
- [DescribeInstanceInformation](#) (p. 48)
- [DescribeMaintenanceWindowExecutions](#) (p. 51)
- [DescribeMaintenanceWindowExecutionTaskInvocations](#) (p. 53)
- [DescribeMaintenanceWindowExecutionTasks](#) (p. 55)
- [DescribeMaintenanceWindows](#) (p. 57)
- [DescribeMaintenanceWindowTargets](#) (p. 59)
- [DescribeMaintenanceWindowTasks](#) (p. 61)
- [DescribeParameters](#) (p. 63)

- [GetAutomationExecution](#) (p. 65)
- [GetCommandInvocation](#) (p. 67)
- [GetDocument](#) (p. 71)
- [GetInventory](#) (p. 73)
- [GetInventorySchema](#) (p. 76)
- [GetMaintenanceWindow](#) (p. 78)
- [GetMaintenanceWindowExecution](#) (p. 80)
- [GetMaintenanceWindowExecutionTask](#) (p. 82)
- [GetParameterHistory](#) (p. 85)
- [GetParameters](#) (p. 87)
- [ListAssociations](#) (p. 89)
- [ListCommandInvocations](#) (p. 91)
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- [ListDocuments](#) (p. 97)
- [ListDocumentVersions](#) (p. 99)
- [ListInventoryEntries](#) (p. 101)
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- [PutInventory](#) (p. 108)
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- [RegisterTargetWithMaintenanceWindow](#) (p. 112)
- [RegisterTaskWithMaintenanceWindow](#) (p. 114)
- [RemoveTagsFromResource](#) (p. 117)
- [SendCommand](#) (p. 119)
- [StartAutomationExecution](#) (p. 124)
- [StopAutomationExecution](#) (p. 126)
- [UpdateAssociation](#) (p. 127)
- [UpdateAssociationStatus](#) (p. 130)
- [UpdateDocument](#) (p. 133)
- [UpdateDocumentDefaultVersion](#) (p. 135)
- [UpdateMaintenanceWindow](#) (p. 137)
- [UpdateManagedInstanceRole](#) (p. 140)

## AddTagsToResource

Adds or overwrites one or more tags for the specified resource. Tags are metadata that you assign to your managed instances. Tags enable you to categorize your managed instances in different ways, for example, by purpose, owner, or environment. Each tag consists of a key and an optional value, both of which you define. For example, you could define a set of tags for your account's managed instances that helps you track each instance's owner and stack level. For example: Key=Owner and Value=DbAdmin, SysAdmin, or Dev. Or Key=Stack and Value=Production, Pre-Production, or Test. Each resource can have a maximum of 10 tags.

We recommend that you devise a set of tag keys that meets your needs for each resource type. Using a consistent set of tag keys makes it easier for you to manage your resources. You can search and filter the resources based on the tags you add. Tags don't have any semantic meaning to Amazon EC2 and are interpreted strictly as a string of characters.

For more information about tags, see [Tagging Your Amazon EC2 Resources](#) in the Amazon EC2 User Guide.

## Request Syntax

```
{
  "ResourceId": "string",
  "ResourceType": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### ResourceId (p. 4)

The resource ID you want to tag.

Type: String

Required: Yes

### ResourceType (p. 4)

Specifies the type of resource you are tagging.

Type: String

Valid Values: `ManagedInstance` | `MaintenanceWindow` | `Parameter`

Required: Yes

### Tags (p. 4)

One or more tags. The value parameter is required, but if you don't want the tag to have a value, specify the parameter with no value, and we set the value to an empty string.

Type: array of [Tag](#) (p. 214) objects

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 \(p. 233\)](#).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidResourceId**

The resource ID is not valid. Verify that you entered the correct ID and try again.

HTTP Status Code: 400

### **InvalidResourceType**

The resource type is not valid. If you are attempting to tag an instance, the instance must be a registered, managed instance.

HTTP Status Code: 400

### **TooManyTagsError**

The `Targets` parameter includes too many tags. Remove one or more tags and try the command again.

HTTP Status Code: 400



# CancelCommand

Attempts to cancel the command specified by the Command ID. There is no guarantee that the command will be terminated and the underlying process stopped.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### CommandId (p. 6)

The ID of the command you want to cancel.

Type: String

Length Constraints: Fixed length of 36.

Required: Yes

### InstanceIds (p. 6)

(Optional) A list of instance IDs on which you want to cancel the command. If not provided, the command is canceled on every instance on which it was requested.

Type: array of Strings

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

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 \(p. 233\)](#).

### DuplicateInstanceId

You cannot specify an instance ID in more than one association.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidCommandId

HTTP Status Code: 400

### InvalidInstanceId

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

# CreateActivation

Registers your on-premises server or virtual machine with Amazon EC2 so that you can manage these resources using Run Command. An on-premises server or virtual machine that has been registered with EC2 is called a managed instance. For more information about activations, see [Setting Up Managed Instances \(Linux\)](#) or [Setting Up Managed Instances \(Windows\)](#) in the Amazon EC2 User Guide.

## Request Syntax

```
{
  "DefaultInstanceName": "string",
  "Description": "string",
  "ExpirationDate": number,
  "IamRole": "string",
  "RegistrationLimit": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### DefaultInstanceName (p. 8)

The name of the registered, managed instance as it will appear in the Amazon EC2 console or when you use the AWS command line tools to list EC2 resources.

Type: String

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

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

Required: No

### Description (p. 8)

A user-defined description of the resource that you want to register with Amazon EC2.

Type: String

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

Required: No

### ExpirationDate (p. 8)

The date by which this activation request should expire. The default value is 24 hours.

Type: Timestamp

Required: No

### IamRole (p. 8)

The Amazon Identity and Access Management (IAM) role that you want to assign to the managed instance.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

### RegistrationLimit (p. 8)

Specify the maximum number of managed instances you want to register. The default value is 1 instance.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## Response Syntax

```
{  
  "ActivationCode": "string",  
  "ActivationId": "string"  
}
```

## Response Elements

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

### ActivationCode (p. 9)

The code the system generates when it processes the activation. The activation code functions like a password to validate the activation ID.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 250.

### ActivationId (p. 9)

The ID number generated by the system when it processed the activation. The activation ID functions like a user name.

Type: String

Pattern: `^[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

# CreateAssociation

Associates the specified SSM document with the specified instances or targets.

When you associate an SSM document with one or more instances using instance IDs or tags, the SSM agent running on the instance processes the document and configures the instance as specified.

If you associate a document with an instance that already has an associated document, the system throws the `AssociationAlreadyExists` exception.

## Request Syntax

```
{
  "DocumentVersion": "string",
  "InstanceId": "string",
  "Name": "string",
  "OutputLocation": {
    "S3Location": {
      "OutputS3BucketName": "string",
      "OutputS3KeyPrefix": "string",
      "OutputS3Region": "string"
    }
  },
  "Parameters": {
    "string": [ "string" ]
  },
  "ScheduleExpression": "string",
  "Targets": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### DocumentVersion (p. 10)

The document version you want to associate with the target(s). Can be a specific version or the default version.

Type: String

Pattern: ( $[\$]LATEST$  |  $[\$]DEFAULT$  |  $^[1-9][0-9]*$ )

Required: No

### InstanceId (p. 10)

The instance ID.

Type: String

Pattern: ( $^i-(\w{8}|\w{17})$ )\$ | ( $^mi-\w{17}$ )\$)

Required: No

### Name (p. 10)

The name of the SSM document.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: Yes

#### OutputLocation (p. 10)

An Amazon S3 bucket where you want to store the output details of the request. For example:

```
"{ \"S3Location\": { \"OutputS3Region\": \"<region>\",  
  \"OutputS3BucketName\": \"bucket name\", \"OutputS3KeyPrefix\": \"folder  
  name\" } }"
```

Type: [InstanceAssociationOutputLocation \(p. 178\)](#) object

Required: No

#### Parameters (p. 10)

The parameters for the documents runtime configuration.

Type: String to array of Strings map

Required: No

#### ScheduleExpression (p. 10)

A cron expression when the association will be applied to the target(s). Supported expressions are every half, 1, 2, 4, 8 or 12 hour(s); every specified day and time of the week. For example: `cron(0 0/30 * 1/1 * ? *)` to run every thirty minutes; `cron(0 0 0/4 1/1 * ? *)` to run every four hours; and `cron(0 0 10 ? * SUN *)` to run every Sunday at 10 a.m.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

#### Targets (p. 10)

The targets (either instances or tags) for the association. Instances are specified using `Key=instanceids,Values=<instanceid1>,<instanceid2>`. Tags are specified using `Key=<tag name>,Values=<tag value>`.

Type: array of [Target \(p. 215\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

## Response Syntax

```
{  
  "AssociationDescription": {  
    "AssociationId": "string",  
    "Date": number,  
    "DocumentVersion": "string",  
    "InstanceId": "string",  
    "LastExecutionDate": number,  
    "LastSuccessfulExecutionDate": number,  
    "LastUpdateAssociationDate": number,  
    "Name": "string",  
    "OutputLocation": {  
      "S3Location": {  
        "OutputS3BucketName": "string",  
        "OutputS3KeyPrefix": "string",  
        "OutputS3Region": "string"  
      }  
    },  
    "Overview": {  
      "AssociationStatusAggregatedCount": {  
        "string": number  
      }  
    }  
  }  
}
```

```
    "DetailedStatus": "string",
    "Status": "string"
  },
  "Parameters": {
    "string": [ "string" ]
  },
  "ScheduleExpression": "string",
  "Status": {
    "AdditionalInfo": "string",
    "Date": number,
    "Message": "string",
    "Name": "string"
  },
  "Targets": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ]
}
```

## Response Elements

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

### AssociationDescription (p. 11)

Information about the association.

Type: [AssociationDescription \(p. 146\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### AssociationAlreadyExists

The specified association already exists.

HTTP Status Code: 400

### AssociationLimitExceeded

You can have at most 2,000 active associations.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidDocument

The specified document does not exist.

HTTP Status Code: 400

### InvalidDocumentVersion

The document version is not valid or does not exist.

HTTP Status Code: 400

### InvalidInstanceId

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**InvalidOutputLocation**

The output location is not valid or does not exist.

HTTP Status Code: 400

**InvalidParameters**

You must specify values for all required parameters in the SSM document. You can only supply values to parameters defined in the SSM document.

HTTP Status Code: 400

**InvalidSchedule**

The schedule is invalid. Verify your cron or rate expression and try again.

HTTP Status Code: 400

**InvalidTarget**

The target is not valid or does not exist. It might not be configured for EC2 Systems Manager or you might not have permission to perform the operation.

HTTP Status Code: 400

**UnsupportedPlatformType**

The document does not support the platform type of the given instance ID(s). For example, you sent an SSM document for a Windows instance to a Linux instance.

HTTP Status Code: 400



# CreateAssociationBatch

Associates the specified SSM document with the specified instances or targets.

When you associate an SSM document with one or more instances using instance IDs or tags, the SSM agent running on the instance processes the document and configures the instance as specified.

If you associate a document with an instance that already has an associated document, the system throws the `AssociationAlreadyExists` exception.

## Request Syntax

```
{
  "Entries": [
    {
      "DocumentVersion": "string",
      "InstanceId": "string",
      "Name": "string",
      "OutputLocation": {
        "S3Location": {
          "OutputS3BucketName": "string",
          "OutputS3KeyPrefix": "string",
          "OutputS3Region": "string"
        }
      },
      "Parameters": {
        "string": [ "string" ]
      },
      "ScheduleExpression": "string",
      "Targets": [
        {
          "Key": "string",
          "Values": [ "string" ]
        }
      ]
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Entries (p. 14)

One or more associations.

Type: array of [CreateAssociationBatchRequestEntry](#) (p. 166) objects

Array Members: Minimum number of 1 item.

Required: Yes

## Response Syntax

```
{
  "Failed": [
```

```
{
  "Entry": {
    "DocumentVersion": "string",
    "InstanceId": "string",
    "Name": "string",
    "OutputLocation": {
      "S3Location": {
        "OutputS3BucketName": "string",
        "OutputS3KeyPrefix": "string",
        "OutputS3Region": "string"
      }
    },
    "Parameters": {
      "string": [ "string" ]
    },
    "ScheduleExpression": "string",
    "Targets": [
      {
        "Key": "string",
        "Values": [ "string" ]
      }
    ]
  },
  "Fault": "string",
  "Message": "string"
},
"Successful": [
  {
    "AssociationId": "string",
    "Date": number,
    "DocumentVersion": "string",
    "InstanceId": "string",
    "LastExecutionDate": number,
    "LastSuccessfulExecutionDate": number,
    "LastUpdateAssociationDate": number,
    "Name": "string",
    "OutputLocation": {
      "S3Location": {
        "OutputS3BucketName": "string",
        "OutputS3KeyPrefix": "string",
        "OutputS3Region": "string"
      }
    },
    "Overview": {
      "AssociationStatusAggregatedCount": {
        "string": number
      },
      "DetailedStatus": "string",
      "Status": "string"
    },
    "Parameters": {
      "string": [ "string" ]
    },
    "ScheduleExpression": "string",
    "Status": {
      "AdditionalInfo": "string",
      "Date": number,
      "Message": "string",
```

```
    "Name": "string"
  },
  "Targets": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ]
}
```

## Response Elements

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

### Failed (p. 14)

Information about the associations that failed.

Type: array of [FailedCreateAssociation \(p. 175\)](#) objects

### Successful (p. 14)

Information about the associations that succeeded.

Type: array of [AssociationDescription \(p. 146\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### AssociationLimitExceeded

You can have at most 2,000 active associations.

HTTP Status Code: 400

### DuplicateInstanceid

You cannot specify an instance ID in more than one association.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidDocument

The specified document does not exist.

HTTP Status Code: 400

### InvalidDocumentVersion

The document version is not valid or does not exist.

HTTP Status Code: 400

### InvalidInstanceid

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**InvalidOutputLocation**

The output location is not valid or does not exist.

HTTP Status Code: 400

**InvalidParameters**

You must specify values for all required parameters in the SSM document. You can only supply values to parameters defined in the SSM document.

HTTP Status Code: 400

**InvalidSchedule**

The schedule is invalid. Verify your cron or rate expression and try again.

HTTP Status Code: 400

**InvalidTarget**

The target is not valid or does not exist. It might not be configured for EC2 Systems Manager or you might not have permission to perform the operation.

HTTP Status Code: 400

**UnsupportedPlatformType**

The document does not support the platform type of the given instance ID(s). For example, you sent an SSM document for a Windows instance to a Linux instance.

HTTP Status Code: 400

# CreateDocument

Creates an SSM document.

After you create an SSM document, you can use `CreateAssociation` to associate it with one or more running instances.

## Request Syntax

```
{  
  "Content": "string",  
  "DocumentType": "string",  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Content (p. 18)

A valid JSON string.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### DocumentType (p. 18)

The type of document to create. Valid document types include: Policy, Automation, and Command.

Type: String

Valid Values: Command | Policy | Automation

Required: No

### Name (p. 18)

A name for the SSM document.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: Yes

## Response Syntax

```
{  
  "DocumentDescription": {  
    "CreateDate": number,  
    "DefaultVersion": "string",  
    "Description": "string",  
    "DocumentType": "string",  
    "DocumentVersion": "string",  
    "Hash": "string",  
    "HashType": "string",  
    "LatestVersion": "string",  
    "Name": "string",  
    "Owner": "string",  
    "Parameters": [  

```

```
{
  {
    "DefaultValue": "string",
    "Description": "string",
    "Name": "string",
    "Type": "string"
  },
  "PlatformTypes": [ "string" ],
  "SchemaVersion": "string",
  "Shal": "string",
  "Status": "string"
}
```

## Response Elements

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

### **DocumentDescription** (p. 18)

Information about the SSM document.

Type: [DocumentDescription](#) (p. 169) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **DocumentAlreadyExists**

The specified SSM document already exists.

HTTP Status Code: 400

### **DocumentLimitExceeded**

You can have at most 200 active SSM documents.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidDocumentContent**

The content for the SSM document is not valid.

HTTP Status Code: 400

### **InvalidDocumentSchemaVersion**

The version of the document schema is not supported.

HTTP Status Code: 400

### **MaxDocumentSizeExceeded**

The size limit of an SSM document is 64 KB.

HTTP Status Code: 400

# CreateMaintenanceWindow

Creates a new Maintenance Window.

## Request Syntax

```
{  
  "AllowUnassociatedTargets": boolean,  
  "ClientToken": "string",  
  "Cutoff": number,  
  "Duration": number,  
  "Name": "string",  
  "Schedule": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### AllowUnassociatedTargets (p. 20)

Whether targets must be registered with the Maintenance Window before tasks can be defined for those targets.

Type: Boolean

Required: Yes

### ClientToken (p. 20)

User-provided idempotency token.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

### Cutoff (p. 20)

The number of hours before the end of the Maintenance Window that Systems Manager stops scheduling new tasks for execution.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 23.

Required: Yes

### Duration (p. 20)

The duration of the Maintenance Window in hours.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 24.

Required: Yes

### Name (p. 20)

The name of the Maintenance Window.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: Yes

### Schedule (p. 20)

The schedule of the Maintenance Window in the form of a cron or rate expression.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.  
Required: Yes

## Response Syntax

```
{  
  "WindowId": "string"  
}
```

## Response Elements

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

### **WindowId** (p. 21)

The ID of the created Maintenance Window.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **IdempotentParameterMismatch**

Error returned when an idempotent operation is retried and the parameters don't match the original call to the API with the same idempotency token.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **ResourceLimitExceededException**

Error returned when the caller has exceeded the default resource limits (e.g. too many Maintenance Windows have been created).

HTTP Status Code: 400



# DeleteActivation

Deletes an activation. You are not required to delete an activation. If you delete an activation, you can no longer use it to register additional managed instances. Deleting an activation does not de-register managed instances. You must manually de-register managed instances.

## Request Syntax

```
{  
  "ActivationId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### ActivationId (p. 22)

The ID of the activation that you want to delete.

Type: String

Pattern: `^[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}$`

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. 233).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidActivation

The activation is not valid. The activation might have been deleted, or the ActivationId and the ActivationCode do not match.

HTTP Status Code: 400

### InvalidActivationId

The activation ID is not valid. Verify the you entered the correct ActivationId or ActivationCode and try again.

HTTP Status Code: 400

# DeleteAssociation

Disassociates the specified SSM document from the specified instance.

When you disassociate an SSM document from an instance, it does not change the configuration of the instance. To change the configuration state of an instance after you disassociate a document, you must create a new document with the desired configuration and associate it with the instance.

## Request Syntax

```
{  
  "AssociationId": "string",  
  "InstanceId": "string",  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### AssociationId (p. 23)

The association ID that you want to delete.

Type: String

Pattern: [0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}

Required: No

### InstanceId (p. 23)

The ID of the instance.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: No

### Name (p. 23)

The name of the SSM document.

Type: String

Pattern: ^[a-zA-Z0-9\_\-\.]{3,128}\$

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. 233).

### AssociationDoesNotExist

The specified association does not exist.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

**InvalidDocument**

The specified document does not exist.

HTTP Status Code: 400

**InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**TooManyUpdates**

There are concurrent updates for a resource that supports one update at a time.

HTTP Status Code: 400

# DeleteDocument

Deletes the SSM document and all instance associations to the document.

Before you delete the SSM document, we recommend that you use `DeleteAssociation` to disassociate all instances that are associated with the document.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Name (p. 25)

The name of the SSM document.

Type: String

Pattern: `^[a-zA-Z0-9_\-.]{3,128}$`

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 \(p. 233\)](#).

### AssociatedInstances

You must disassociate an SSM document from all instances before you can delete it.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidDocument

The specified document does not exist.

HTTP Status Code: 400

### InvalidDocumentOperation

You attempted to delete a document while it is still shared. You must stop sharing the document before you can delete it.

HTTP Status Code: 400

# DeleteMaintenanceWindow

Deletes a Maintenance Window.

## Request Syntax

```
{  
  "WindowId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### WindowId (p. 26)

The ID of the Maintenance Window to delete.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

## Response Syntax

```
{  
  "WindowId": "string"  
}
```

## Response Elements

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

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

### WindowId (p. 26)

The ID of the deleted Maintenance Window.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

# DeleteParameter

Delete a parameter from the system.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Name (p. 27)

The name of the parameter to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?!^([aA][wW][sS]|[sS][sS][mM]))(?=[a-zA-Z0-9_.-]*$).*`

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. 233).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### ParameterNotFound

The parameter could not be found. Verify the name and try again.

HTTP Status Code: 400

# DeregisterManagedInstance

Removes the server or virtual machine from the list of registered servers. You can reregister the instance again at any time. If you don't plan to use Run Command on the server, we suggest uninstalling the SSM agent first.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### InstanceId (p. 28)

The ID assigned to the managed instance when you registered it using the activation process.

Type: String

Pattern: `^mi-[0-9a-f]{17}$`

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. 233).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidInstanceId

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

# DeregisterTargetFromMaintenanceWindow

Removes a target from a Maintenance Window.

## Request Syntax

```
{  
  "WindowId": "string",  
  "WindowTargetId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### WindowId (p. 29)

The ID of the Maintenance Window the target should be removed from.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

### WindowTargetId (p. 29)

The ID of the target definition to remove.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: Yes

## Response Syntax

```
{  
  "WindowId": "string",  
  "WindowTargetId": "string"  
}
```

## Response Elements

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

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

### WindowId (p. 29)

The ID of the Maintenance Window the target was removed from.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

### WindowTargetId (p. 29)

The ID of the removed target definition.



Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# DeregisterTaskFromMaintenanceWindow

Removes a task from a Maintenance Window.

## Request Syntax

```
{  
  "WindowId": "string",  
  "WindowTaskId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### WindowId (p. 31)

The ID of the Maintenance Window the task should be removed from.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

### WindowTaskId (p. 31)

The ID of the task to remove from the Maintenance Window.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: Yes

## Response Syntax

```
{  
  "WindowId": "string",  
  "WindowTaskId": "string"  
}
```

## Response Elements

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

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

### WindowId (p. 31)

The ID of the Maintenance Window the task was removed from.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

### WindowTaskId (p. 31)

The ID of the task removed from the Maintenance Window.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# DescribeActivations

Details about the activation, including: the date and time the activation was created, the expiration date, the IAM role assigned to the instances in the activation, and the number of instances activated by this registration.

## Request Syntax

```
{
  "Filters": [
    {
      "FilterKey": "string",
      "FilterValues": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Filters (p. 33)

A filter to view information about your activations.

Type: array of [DescribeActivationsFilter \(p. 167\)](#) objects

Required: No

### MaxResults (p. 33)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 33)

A token to start the list. Use this token to get the next set of results.

Type: String

Required: No

## Response Syntax

```
{
  "ActivationList": [
    {
      "ActivationId": "string",
      "CreateDate": number,
      "DefaultInstanceName": "string",
      "Description": "string",
      "ExpirationDate": number,
      "Expired": boolean,
      "IamRole": "string",
    }
  ]
}
```

```
    "RegistrationLimit": number ,  
    "RegistrationsCount": number  
  },  
],  
"NextToken": "string"  
}
```

## Response Elements

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

### **ActivationList** (p. 33)

A list of activations for your AWS account.  
Type: array of [Activation](#) (p. 143) objects

### **NextToken** (p. 33)

The token for the next set of items to return. Use this token to get the next set of results.  
Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **InternalServerError**

An error occurred on the server side.  
HTTP Status Code: 400

### **InvalidFilter**

The filter name is not valid. Verify the you entered the correct name and try again.  
HTTP Status Code: 400

### **InvalidNextToken**

The specified token is not valid.  
HTTP Status Code: 400

# DescribeAssociation

Describes the associations for the specified SSM document or instance.

## Request Syntax

```
{
  "AssociationId": "string",
  "InstanceId": "string",
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### AssociationId (p. 35)

The association ID for which you want information.

Type: String

Pattern: [0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}

Required: No

### InstanceId (p. 35)

The instance ID.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: No

### Name (p. 35)

The name of the SSM document.

Type: String

Pattern: ^[a-zA-Z0-9\_\-\.]{3,128}\$

Required: No

## Response Syntax

```
{
  "AssociationDescription": {
    "AssociationId": "string",
    "Date": number,
    "DocumentVersion": "string",
    "InstanceId": "string",
    "LastExecutionDate": number,
    "LastSuccessfulExecutionDate": number,
    "LastUpdateAssociationDate": number,
    "Name": "string",
    "OutputLocation": {
      "S3Location": {
        "OutputS3BucketName": "string",

```

```
        "OutputS3KeyPrefix": "string",
        "OutputS3Region": "string"
    },
    "Overview": {
        "AssociationStatusAggregatedCount": {
            "string": number
        },
        "DetailedStatus": "string",
        "Status": "string"
    },
    "Parameters": {
        "string": [ "string" ]
    },
    "ScheduleExpression": "string",
    "Status": {
        "AdditionalInfo": "string",
        "Date": number,
        "Message": "string",
        "Name": "string"
    },
    "Targets": [
        {
            "Key": "string",
            "Values": [ "string" ]
        }
    ]
}
```

## Response Elements

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

### AssociationDescription (p. 35)

Information about the association.

Type: [AssociationDescription \(p. 146\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### AssociationDoesNotExist

The specified association does not exist.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidDocument

The specified document does not exist.

HTTP Status Code: 400

### InvalidInstanceId

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400



# DescribeAutomationExecutions

Provides details about all active and terminated Automation executions.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Filters (p. 38)

Filters used to limit the scope of executions that are requested.

Type: array of [AutomationExecutionFilter](#) (p. 153) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### MaxResults (p. 38)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 38)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "AutomationExecutionMetadataList": [
    {
      "AutomationExecutionId": "string",
      "AutomationExecutionStatus": "string",
      "DocumentName": "string",
      "DocumentVersion": "string",
      "ExecutedBy": "string",
      "ExecutionEndTime": number,
      "ExecutionStartTime": number,
    }
  ]
}
```

```
    "LogFile": "string",  
    "Outputs": {  
      "string" : [ "string" ]  
    }  
  },  
  "NextToken": "string"  
}
```

## Response Elements

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

### **AutomationExecutionMetadataList (p. 38)**

The list of details about each automation execution which has occurred which matches the filter specification, if any.

Type: array of [AutomationExecutionMetadata \(p. 154\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

### **NextToken (p. 38)**

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

# DescribeDocument

Describes the specified SSM document.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### DocumentVersion (p. 40)

The document version for which you want information. Can be a specific version or the default version.

Type: String

Pattern: ( $[\$]LATEST|[\$]DEFAULT|^[1-9][0-9]*\$\)$ )

Required: No

### Name (p. 40)

The name of the SSM document.

Type: String

Pattern:  $^[a-zA-Z0-9_\-.:/]{3,128}\$\)$

Required: Yes

## Response Syntax

```
{  
  "Document": {  
    "CreateDate": number,  
    "DefaultVersion": "string",  
    "Description": "string",  
    "DocumentType": "string",  
    "DocumentVersion": "string",  
    "Hash": "string",  
    "HashType": "string",  
    "LatestVersion": "string",  
    "Name": "string",  
    "Owner": "string",  
    "Parameters": [  
      {  
        "DefaultValue": "string",  
        "Description": "string",  
        "Name": "string",  
        "Type": "string"  
      }  
    ],  
    "PlatformTypes": [ "string" ],  
  }  
}
```

```
"SchemaVersion": "string",  
"Shal": "string",  
"Status": "string"  
}  
}
```

## Response Elements

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

### Document (p. 40)

Information about the SSM document.

Type: [DocumentDescription \(p. 169\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidDocument

The specified document does not exist.

HTTP Status Code: 400

### InvalidDocumentVersion

The document version is not valid or does not exist.

HTTP Status Code: 400

# DescribeDocumentPermission

Describes the permissions for an SSM document. If you created the document, you are the owner. If a document is shared, it can either be shared privately (by specifying a user's AWS account ID) or publicly (*All*).

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Name (p. 42)

The name of the document for which you are the owner.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: Yes

### PermissionType (p. 42)

The permission type for the document. The permission type can be *Share*.

Type: String

Valid Values: `Share`

Required: Yes

## Response Syntax

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

## Response Elements

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

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

### AccountIds (p. 42)

The account IDs that have permission to use this document. The ID can be either an AWS account or *All*.

Type: array of Strings

Array Members: Maximum number of 20 items.

Pattern: `(?i)all|[0-9]{12}`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

**InvalidDocument**

The specified document does not exist.

HTTP Status Code: 400

**InvalidPermissionType**

The permission type is not supported. *Share* is the only supported permission type.

HTTP Status Code: 400

# DescribeEffectiveInstanceAssociations

All associations for the instance(s).

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### InstanceId (p. 44)

The instance ID for which you want to view all associations.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: Yes

### MaxResults (p. 44)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 5.

Required: No

### NextToken (p. 44)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "Associations": [
    {
      "AssociationId": "string",
      "Content": "string",
      "InstanceId": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

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

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

**Associations (p. 44)**

The associations for the requested instance.

Type: array of [InstanceAssociation \(p. 177\)](#) objects

**NextToken (p. 44)**

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

**InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400



# DescribeInstanceAssociationsStatus

The status of the associations for the instance(s).

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### InstanceId (p. 46)

The instance IDs for which you want association status information.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: Yes

### MaxResults (p. 46)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 46)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "InstanceAssociationStatusInfos": [
    {
      "AssociationId": "string",
      "DetailedStatus": "string",
      "DocumentVersion": "string",
      "ErrorCode": "string",
      "ExecutionDate": number,
      "ExecutionSummary": "string",
      "InstanceId": "string",
      "Name": "string",
      "OutputUrl": {
        "S3OutputUrl": {
          "OutputUrl": "string"
        }
      }
    }
  ]
}
```

```
    },  
    "Status": "string"  
  },  
  ],  
  "NextToken": "string"  
}
```

## Response Elements

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

### **InstanceAssociationStatusInfos** (p. 46)

Status information about the association.

Type: array of [InstanceAssociationStatusInfo](#) (p. 180) objects

### **NextToken** (p. 46)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

### **InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

# DescribeInstanceInformation

Describes one or more of your instances. You can use this to get information about instances like the operating system platform, the SSM agent version (Linux), status etc. If you specify one or more instance IDs, it returns information for those instances. If you do not specify instance IDs, it returns information for all your instances. If you specify an instance ID that is not valid or an instance that you do not own, you receive an error.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "InstanceInformationFilterList": [
    {
      "key": "string",
      "valueSet": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Filters (p. 48)

One or more filters. Use a filter to return a more specific list of instances.

Type: array of [InstanceInformationStringFilter \(p. 185\)](#) objects

Array Members: Minimum number of 0 items.

Required: No

### InstanceInformationFilterList (p. 48)

One or more filters. Use a filter to return a more specific list of instances.

Type: array of [InstanceInformationFilter \(p. 184\)](#) objects

Array Members: Minimum number of 0 items.

Required: No

### MaxResults (p. 48)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 50.

Required: No

### NextToken (p. 48)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "InstanceInformationList": [
    {
      "ActivationId": "string",
      "AgentVersion": "string",
      "AssociationOverview": {
        "DetailedStatus": "string",
        "InstanceAssociationStatusAggregatedCount": {
          "string": number
        }
      },
      "AssociationStatus": "string",
      "ComputerName": "string",
      "IamRole": "string",
      "InstanceId": "string",
      "IPAddress": "string",
      "IsLatestVersion": boolean,
      "LastAssociationExecutionDate": number,
      "LastPingDateTime": number,
      "LastSuccessfulAssociationExecutionDate": number,
      "Name": "string",
      "PingStatus": "string",
      "PlatformName": "string",
      "PlatformType": "string",
      "PlatformVersion": "string",
      "RegistrationDate": number,
      "ResourceType": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

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

### **InstanceInformationList (p. 49)**

The instance information list.

Type: array of [InstanceInformation \(p. 182\)](#) objects

### **NextToken (p. 49)**

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

**InvalidFilterKey**

The specified key is not valid.

HTTP Status Code: 400

**InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**InvalidInstanceInformationFilterValue**

The specified filter value is not valid.

HTTP Status Code: 400

**InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

## DescribeMaintenanceWindowExecutions

Lists the executions of a Maintenance Window (meaning, information about when the Maintenance Window was scheduled to be active and information about tasks registered and run with the Maintenance Window).

### Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string",
  "WindowId": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

#### Filters (p. 51)

Each entry in the array is a structure containing:

Key (string,  $1 \leq \text{length} \leq 128$ )

Values (array of strings  $1 \leq \text{length} \leq 256$ )

The supported Keys are `ExecutedBefore` and `ExecutedAfter` with the value being a date/time string such as 2016-11-04T05:00:00Z.

Type: array of [MaintenanceWindowFilter \(p. 198\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

#### MaxResults (p. 51)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 10. Maximum value of 100.

Required: No

#### NextToken (p. 51)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

#### WindowId (p. 51)

The ID of the Maintenance Window whose executions should be retrieved.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "WindowExecutions": [
    {
      "EndTime": number,
      "StartTime": number,
      "Status": "string",
      "StatusDetails": "string",
      "WindowExecutionId": "string",
      "WindowId": "string"
    }
  ]
}
```

## Response Elements

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

### **NextToken** (p. 52)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### **WindowExecutions** (p. 52)

Information about the Maintenance Windows execution.

Type: array of [MaintenanceWindowExecution](#) (p. 193) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# DescribeMaintenanceWindowExecutionTaskInvocations

Retrieves the individual task executions (one per target) for a particular task executed as part of a Maintenance Window execution.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string",
  "TaskId": "string",
  "WindowExecutionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Filters (p. 53)

Optional filters used to scope down the returned task invocations. The supported filter key is STATUS with the corresponding values PENDING, IN\_PROGRESS, SUCCESS, FAILED, TIMED\_OUT, CANCELLING, and CANCELLED.

Type: array of [MaintenanceWindowFilter \(p. 198\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

### MaxResults (p. 53)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 10. Maximum value of 100.

Required: No

### NextToken (p. 53)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

### TaskId (p. 53)

The ID of the specific task in the Maintenance Window task that should be retrieved.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: Yes

### WindowExecutionId (p. 53)

The ID of the Maintenance Window execution the task is part of.



Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "WindowExecutionTaskInvocationIdentities": [
    {
      "EndTime": number,
      "ExecutionId": "string",
      "InvocationId": "string",
      "OwnerInformation": "string",
      "Parameters": "string",
      "StartTime": number,
      "Status": "string",
      "StatusDetails": "string",
      "TaskExecutionId": "string",
      "WindowExecutionId": "string",
      "WindowTargetId": "string"
    }
  ]
}
```

## Response Elements

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

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

### **NextToken** (p. 54)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### **WindowExecutionTaskInvocationIdentities** (p. 54)

Information about the task invocation results per invocation.

Type: array of [MaintenanceWindowExecutionTaskInvocationIdentity](#) (p. 196) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# DescribeMaintenanceWindowExecutionTasks

For a given Maintenance Window execution, lists the tasks that were executed.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string",
  "WindowExecutionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Filters (p. 55)

Optional filters used to scope down the returned tasks. The supported filter key is STATUS with the corresponding values PENDING, IN\_PROGRESS, SUCCESS, FAILED, TIMED\_OUT, CANCELLING, and CANCELLED.

Type: array of [MaintenanceWindowFilter](#) (p. 198) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

### MaxResults (p. 55)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 10. Maximum value of 100.

Required: No

### NextToken (p. 55)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

### WindowExecutionId (p. 55)

The ID of the Maintenance Window execution whose task executions should be retrieved.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "WindowExecutionTaskIdentities": [
    {
      "EndTime": number,
      "StartTime": number,
      "Status": "string",
      "StatusDetails": "string",
      "TaskArn": "string",
      "TaskExecutionId": "string",
      "TaskType": "string",
      "WindowExecutionId": "string"
    }
  ]
}
```

## Response Elements

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

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

### **NextToken** (p. 56)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### **WindowExecutionTaskIdentities** (p. 56)

Information about the task executions.

Type: array of [MaintenanceWindowExecutionTaskIdentity](#) (p. 194) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# DescribeMaintenanceWindows

Retrieves the Maintenance Windows in an AWS account.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Filters (p. 57)

Optional filters used to narrow down the scope of the returned Maintenance Windows. Supported filter keys are `Name` and `Enabled`.

Type: array of [MaintenanceWindowFilter](#) (p. 198) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

### MaxResults (p. 57)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 10. Maximum value of 100.

Required: No

### NextToken (p. 57)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "WindowIdentities": [
    {
      "Cutoff": number,
      "Duration": number,
      "Enabled": boolean,
      "Name": "string",
      "WindowId": "string"
    }
  ]
}
```

```
}  
  ]  
}
```

## Response Elements

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

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

### **NextToken** (p. 57)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### **WindowIdentities** (p. 57)

Information about the Maintenance Windows.

Type: array of [MaintenanceWindowIdentity](#) (p. 199) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# DescribeMaintenanceWindowTargets

Lists the targets registered with the Maintenance Window.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string",
  "WindowId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Filters (p. 59)

Optional filters that can be used to narrow down the scope of the returned window targets. The supported filter keys are `Type`, `WindowTargetId` and `OwnerInformation`.

Type: array of [MaintenanceWindowFilter \(p. 198\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

### MaxResults (p. 59)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 10. Maximum value of 100.

Required: No

### NextToken (p. 59)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

### WindowId (p. 59)

The ID of the Maintenance Window whose targets should be retrieved.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

## Response Syntax

```
{
```

```
"NextToken": "string",
"Targets": [
  {
    "OwnerInformation": "string",
    "ResourceType": "string",
    "Targets": [
      {
        "Key": "string",
        "Values": [ "string" ]
      }
    ],
    "WindowId": "string",
    "WindowTargetId": "string"
  }
]
```

## Response Elements

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

### **NextToken** (p. 59)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### **Targets** (p. 59)

Information about the targets in the Maintenance Window.

Type: array of [MaintenanceWindowTarget](#) (p. 200) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# DescribeMaintenanceWindowTasks

Lists the tasks in a Maintenance Window.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string",
  "WindowId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Filters (p. 61)

Optional filters used to narrow down the scope of the returned tasks. The supported filter keys are `WindowTaskId`, `TaskArn`, `Priority`, and `TaskType`.

Type: array of [MaintenanceWindowFilter \(p. 198\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

### MaxResults (p. 61)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 10. Maximum value of 100.

Required: No

### NextToken (p. 61)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

### WindowId (p. 61)

The ID of the Maintenance Window whose tasks should be retrieved.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

## Response Syntax

```
{
```



```
"NextToken": "string",
"Tasks": [
  {
    "LoggingInfo": {
      "S3BucketName": "string",
      "S3KeyPrefix": "string",
      "S3Region": "string"
    },
    "MaxConcurrency": "string",
    "MaxErrors": "string",
    "Priority": number,
    "ServiceRoleArn": "string",
    "Targets": [
      {
        "Key": "string",
        "Values": [ "string" ]
      }
    ],
    "TaskArn": "string",
    "TaskParameters": {
      "string": {
        "Values": [ "string" ]
      }
    },
    "Type": "string",
    "WindowId": "string",
    "WindowTaskId": "string"
  }
]
}
```

## Response Elements

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

### NextToken (p. 61)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### Tasks (p. 61)

Information about the tasks in the Maintenance Window.

Type: array of [MaintenanceWindowTask \(p. 201\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### DoesNotExistException

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

# DescribeParameters

Get information about a parameter.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Filters (p. 63)

One or more filters. Use a filter to return a more specific list of results.

Type: array of [ParametersFilter \(p. 208\)](#) objects

Required: No

### MaxResults (p. 63)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 63)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Parameters": [
    {
      "Description": "string",
      "KeyId": "string",
      "LastModifiedDate": number,
      "LastModifiedUser": "string",
      "Name": "string",
      "Type": "string"
    }
  ]
}
```

```
}
```

## Response Elements

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

### **NextToken** (p. 63)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### **Parameters** (p. 63)

Parameters returned by the request.

Type: array of [ParameterMetadata](#) (p. 207) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidFilterValue**

The filter value is not valid. Verify the value and try again.

HTTP Status Code: 400

### **InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

# GetAutomationExecution

Get detailed information about a particular Automation execution.

## Request Syntax

```
{  
  "AutomationExecutionId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### AutomationExecutionId (p. 65)

The unique identifier for an existing automation execution to examine. The execution ID is returned by `StartAutomationExecution` when the execution of an Automation document is initiated.

Type: String

Length Constraints: Fixed length of 36.

Required: Yes

## Response Syntax

```
{  
  "AutomationExecution": {  
    "AutomationExecutionId": "string",  
    "AutomationExecutionStatus": "string",  
    "DocumentName": "string",  
    "DocumentVersion": "string",  
    "ExecutionEndTime": number,  
    "ExecutionStartTime": number,  
    "FailureMessage": "string",  
    "Outputs": {  
      "string": [ "string" ]  
    },  
    "Parameters": {  
      "string": [ "string" ]  
    },  
    "StepExecutions": [  
      {  
        "Action": "string",  
        "ExecutionEndTime": number,  
        "ExecutionStartTime": number,  
        "FailureMessage": "string",  
        "Inputs": {  
          "string": "string"  
        },  
        "Outputs": {  
          "string": [ "string" ]  
        },  
        "Response": "string",  
      }  
    ]  
  }  
}
```

```
    "ResponseCode": "string",  
    "StepName": "string",  
    "StepStatus": "string"  
  }  
]  
}
```

## Response Elements

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

### **AutomationExecution** (p. 65)

Detailed information about the current state of an automation execution.

Type: [AutomationExecution](#) (p. 151) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **AutomationExecutionNotFoundException**

There is no automation execution information for the requested automation execution ID.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# GetCommandInvocation

Returns detailed information about command execution for an invocation or plugin.

## Request Syntax

```
{  
  "CommandId": "string",  
  "InstanceId": "string",  
  "PluginName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### CommandId (p. 67)

(Required) The parent command ID of the invocation plugin.

Type: String

Length Constraints: Fixed length of 36.

Required: Yes

### InstanceId (p. 67)

(Required) The ID of the managed instance targeted by the command. A managed instance can be an Amazon EC2 instance or an instance in your hybrid environment that is configured for Systems Manager.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: Yes

### PluginName (p. 67)

(Optional) The name of the plugin for which you want detailed results. If the SSM document contains only one plugin, the name can be omitted and the details will be returned.

Type: String

Length Constraints: Minimum length of 4.

Required: No

## Response Syntax

```
{  
  "CommandId": "string",  
  "Comment": "string",  
  "DocumentName": "string",  
  "ExecutionElapsedTime": "string",  
  "ExecutionEndDateTime": "string",  
  "ExecutionStartDateTime": "string",  
  "InstanceId": "string",  
  "PluginName": "string",  
  "ResponseCode": number,  
  "StandardErrorContent": "string",  
}
```

```
"StandardErrorUrl": "string",  
"StandardOutputContent": "string",  
"StandardOutputUrl": "string",  
"Status": "string",  
"StatusDetails": "string"  
}
```

## Response Elements

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

### CommandId (p. 67)

The parent command ID of the invocation plugin.

Type: String

Length Constraints: Fixed length of 36.

### Comment (p. 67)

The comment text for the command.

Type: String

Length Constraints: Maximum length of 100.

### DocumentName (p. 67)

The name of the SSM document that was executed. For example, AWS-RunShellScript is an SSM document.

Type: String

Pattern: `^[a-zA-Z0-9_-\.\ ]{3,128}$`

### ExecutionElapsedTime (p. 67)

Duration since `ExecutionStartDateTime`.

Type: String

Pattern: `^\([\-\ ]?\d{4}(?!\d{2}\b))((-?)((0[1-9]|1[0-2])\d{0,1}|0[1-9]|1[0-2])\d{0,1})?|w([0-4]\d{0,1}|5[0-2])?|([0-9]|1[0-9]|2[0-9]|3[0-5])\d{0,1}|6[1-6])?)([T\s](((0[1-9]|1[0-2])\d{0,1}|0[1-9]|1[0-2])\d{0,1})?|24\?:?00)([\.\, ]\d{0,1})?)(\17[0-5]\d{0,1}|[0-5]\d{0,1})?|([zZ]|([\-\ ])([01]\d{0,1}|2[0-3])?:?([0-5]\d{0,1})?)?)?$`

### ExecutionEndTime (p. 67)

The date and time the plugin was finished executing. Date and time are written in ISO 8601 format. For example, August 28, 2016 is represented as 2016-08-28. If the plugin has not started to execute, the string is empty.

Type: String

Pattern: `^\([\-\ ]?\d{4}(?!\d{2}\b))((-?)((0[1-9]|1[0-2])\d{0,1}|0[1-9]|1[0-2])\d{0,1})?|w([0-4]\d{0,1}|5[0-2])?|([0-9]|1[0-9]|2[0-9]|3[0-5])\d{0,1}|6[1-6])?)([T\s](((0[1-9]|1[0-2])\d{0,1}|0[1-9]|1[0-2])\d{0,1})?|24\?:?00)([\.\, ]\d{0,1})?)(\17[0-5]\d{0,1}|[0-5]\d{0,1})?|([zZ]|([\-\ ])([01]\d{0,1}|2[0-3])?:?([0-5]\d{0,1})?)?)?$`

### ExecutionStartDateTime (p. 67)

The date and time the plugin started executing. Date and time are written in ISO 8601 format. For example, August 28, 2016 is represented as 2016-08-28. If the plugin has not started to execute, the string is empty.

Type: String

Pattern: `^\([\-\ ]?\d{4}(?!\d{2}\b))((-?)((0[1-9]|1[0-2])\d{0,1}|0[1-9]|1[0-2])\d{0,1})?|w([0-4]\d{0,1}|5[0-2])?|([0-9]|1[0-9]|2[0-9]|3[0-5])\d{0,1}|6[1-6])?)([T\s](((0[1-9]|1[0-2])\d{0,1}|0[1-9]|1[0-2])\d{0,1})?|24\?:?00)([\.\, ]\d{0,1})?)(\17[0-5]\d{0,1}|[0-5]\d{0,1})?|([zZ]|([\-\ ])([01]\d{0,1}|2[0-3])?:?([0-5]\d{0,1})?)?)?$`

#### **InstanceId (p. 67)**

The ID of the managed instance targeted by the command. A managed instance can be an Amazon EC2 instance or an instance in your hybrid environment that is configured for Systems Manager.

Type: String

Pattern: `(^i-(\w{8}|\w{17})$)|(^mi-\w{17}$)`

#### **PluginName (p. 67)**

The name of the plugin for which you want detailed results. For example, `aws:RunShellScript` is a plugin.

Type: String

Length Constraints: Minimum length of 4.

#### **ResponseCode (p. 67)**

The error level response code for the plugin script. If the response code is `-1`, then the command has not started executing on the instance, or it was not received by the instance.

Type: Integer

#### **StandardErrorContent (p. 67)**

The first 8,000 characters written by the plugin to `stderr`. If the command has not finished executing, then this string is empty.

Type: String

Length Constraints: Maximum length of 8000.

#### **StandardErrorUrl (p. 67)**

The URL for the complete text written by the plugin to `stderr`. If the command has not finished executing, then this string is empty.

Type: String

#### **StandardOutputContent (p. 67)**

The first 24,000 characters written by the plugin to `stdout`. If the command has not finished executing, if `ExecutionStatus` is neither `Succeeded` nor `Failed`, then this string is empty.

Type: String

Length Constraints: Maximum length of 24000.

#### **StandardOutputUrl (p. 67)**

The URL for the complete text written by the plugin to `stdout` in Amazon S3. If an Amazon S3 bucket was not specified, then this string is empty.

Type: String

#### **Status (p. 67)**

The status of the parent command for this invocation. This status can be different than `StatusDetails`.

Type: String

Valid Values: `Pending` | `InProgress` | `Delayed` | `Success` | `Cancelled` | `TimedOut` | `Failed` | `Cancelling`

#### **StatusDetails (p. 67)**

A detailed status of the command execution for an invocation. `StatusDetails` includes more information than `Status` because it includes states resulting from error and concurrency control parameters. `StatusDetails` can show different results than `Status`. For more information about these statuses, see [Monitor Commands \(Linux\)](#) or [Monitor Commands \(Windows\)](#). `StatusDetails` can be one of the following values:

- **Pending** – The command has not been sent to the instance.
- **In Progress** – The command has been sent to the instance but has not reached a terminal state.
- **Delayed** – The system attempted to send the command to the target, but the target was not available. The instance might not be available because of network issues, the instance was stopped, etc. The system will try to deliver the command again.
- **Success** – The command or plugin was executed successfully. This is a terminal state.



- **Delivery Timed Out** – The command was not delivered to the instance before the delivery timeout expired. Delivery timeouts do not count against the parent command's `MaxErrors` limit, but they do contribute to whether the parent command status is `Success` or `Incomplete`. This is a terminal state.
- **Execution Timed Out** – The command started to execute on the instance, but the execution was not complete before the timeout expired. Execution timeouts count against the `MaxErrors` limit of the parent command. This is a terminal state.
- **Failed** – The command wasn't executed successfully on the instance. For a plugin, this indicates that the result code was not zero. For a command invocation, this indicates that the result code for one or more plugins was not zero. Invocation failures count against the `MaxErrors` limit of the parent command. This is a terminal state.
- **Canceled** – The command was terminated before it was completed. This is a terminal state.
- **Undeliverable** – The command can't be delivered to the instance. The instance might not exist or might not be responding. Undeliverable invocations don't count against the parent command's `MaxErrors` limit and don't contribute to whether the parent command status is `Success` or `Incomplete`. This is a terminal state.
- **Terminated** – The parent command exceeded its `MaxErrors` limit and subsequent command invocations were canceled by the system. This is a terminal state.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidCommandId**

HTTP Status Code: 400

### **InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

### **InvalidPluginName**

The plugin name is not valid.

HTTP Status Code: 400

### **InvocationDoesNotExist**

The command ID and instance ID you specified did not match any invocations. Verify the command ID and the instance ID and try again.

HTTP Status Code: 400

# GetDocument

Gets the contents of the specified SSM document.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### DocumentVersion (p. 71)

The document version for which you want information.

Type: String

Pattern: (`[LATEST | [DEFAULT |  $^{[1-9][0-9]^*$ ]]`)

Required: No

### Name (p. 71)

The name of the SSM document.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.:/]{3,128}$`

Required: Yes

## Response Syntax

```
{  
  "Content": "string",  
  "DocumentType": "string",  
  "DocumentVersion": "string",  
  "Name": "string"  
}
```

## Response Elements

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

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

### Content (p. 71)

The contents of the SSM document.

Type: String

Length Constraints: Minimum length of 1.

### DocumentType (p. 71)

The document type.

Type: String

Valid Values: `Command | Policy | Automation`

#### **DocumentVersion (p. 71)**

The document version.

Type: String

Pattern: (`[LATEST|DEFAULT|[1-9][0-9]*]`)

#### **Name (p. 71)**

The name of the SSM document.

Type: String

Pattern: `^[a-zA-Z0-9_\-.: /]{3,128}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

#### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

#### **InvalidDocument**

The specified document does not exist.

HTTP Status Code: 400

#### **InvalidDocumentVersion**

The document version is not valid or does not exist.

HTTP Status Code: 400

# GetInventory

Query inventory information.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Type": "string",
      "Values": [ "string" ]
    }
  ],
  "MaxResults": number,
  "NextToken": "string",
  "ResultAttributes": [
    {
      "TypeName": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Filters (p. 73)

One or more filters. Use a filter to return a more specific list of results.

Type: array of [InventoryFilter](#) (p. 186) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

### MaxResults (p. 73)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 73)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

### ResultAttributes (p. 73)

The list of inventory item types to return.

Type: array of [ResultAttribute](#) (p. 209) objects

Array Members: Fixed number of 1 item.

Required: No

## Response Syntax

```
{
  "Entities": [
    {
      "Data": {
        "string": {
          "CaptureTime": "string",
          "Content": [
            {
              "string": "string"
            }
          ],
          "ContentHash": "string",
          "SchemaVersion": "string",
          "TypeName": "string"
        }
      },
      "Id": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

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

### Entities (p. 74)

Collection of inventory entities such as a collection of instance inventory.

Type: array of [InventoryResultEntity \(p. 190\)](#) objects

### NextToken (p. 74)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidFilter

The filter name is not valid. Verify the you entered the correct name and try again.

HTTP Status Code: 400

### InvalidNextToken

The specified token is not valid.

HTTP Status Code: 400

### InvalidResultAttributeException

The specified inventory item result attribute is not valid.

HTTP Status Code: 400

**InvalidTypeNameException**

The parameter type name is not valid.

HTTP Status Code: 400

# GetInventorySchema

Return a list of inventory type names for the account, or return a list of attribute names for a specific Inventory item type.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### MaxResults (p. 76)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 50. Maximum value of 200.

Required: No

### NextToken (p. 76)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

### TypeName (p. 76)

The type of inventory item to return.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Schemas": [
    {
      "Attributes": [
        {
          "DataType": "string",
          "Name": "string"
        }
      ],
      "TypeName": "string",
      "Version": "string"
    }
  ]
}
```

```
}
```

## Response Elements

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

### **NextToken** (p. 76)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### **Schemas** (p. 76)

Inventory schemas returned by the request.

Type: array of [InventoryItemSchema](#) (p. 189) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

### **InvalidTypeNameException**

The parameter type name is not valid.

HTTP Status Code: 400



# GetMaintenanceWindow

Retrieves a Maintenance Window.

## Request Syntax

```
{  
  "WindowId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### WindowId (p. 78)

The ID of the desired Maintenance Window.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

## Response Syntax

```
{  
  "AllowUnassociatedTargets": boolean,  
  "CreateDate": number,  
  "Cutoff": number,  
  "Duration": number,  
  "Enabled": boolean,  
  "ModifiedDate": number,  
  "Name": "string",  
  "Schedule": "string",  
  "WindowId": "string"  
}
```

## Response Elements

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

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

### AllowUnassociatedTargets (p. 78)

Whether targets must be registered with the Maintenance Window before tasks can be defined for those targets.

Type: Boolean

### CreateDate (p. 78)

The date the Maintenance Window was created.

Type: Timestamp

### Cutoff (p. 78)

The number of hours before the end of the Maintenance Window that Systems Manager stops scheduling new tasks for execution.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 23.

**Duration (p. 78)**

The duration of the Maintenance Window in hours.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 24.

**Enabled (p. 78)**

Whether the Maintenance Windows is enabled.

Type: Boolean

**ModifiedDate (p. 78)**

The date the Maintenance Window was last modified.

Type: Timestamp

**Name (p. 78)**

The name of the Maintenance Window.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_\-.]{3,128}$`

**Schedule (p. 78)**

The schedule of the Maintenance Window in the form of a cron or rate expression.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

**WindowId (p. 78)**

The ID of the created Maintenance Window.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# GetMaintenanceWindowExecution

Retrieves details about a specific task executed as part of a Maintenance Window execution.

## Request Syntax

```
{  
  "WindowExecutionId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### WindowExecutionId (p. 80)

The ID of the Maintenance Window execution that includes the task.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: Yes

## Response Syntax

```
{  
  "EndTime": number,  
  "StartTime": number,  
  "Status": "string",  
  "StatusDetails": "string",  
  "TaskIds": [ "string" ],  
  "WindowExecutionId": "string"  
}
```

## Response Elements

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

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

### EndTime (p. 80)

The time the Maintenance Window finished executing.

Type: Timestamp

### StartTime (p. 80)

The time the Maintenance Window started executing.

Type: Timestamp

### Status (p. 80)

The status of the Maintenance Window execution.

Type: String

Valid Values: PENDING | IN\_PROGRESS | SUCCESS | FAILED | TIMED\_OUT | CANCELLING | CANCELLED | SKIPPED\_OVERLAPPING

**StatusDetails (p. 80)**

The details explaining the Status. Only available for certain status values.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 250.

**TaskIds (p. 80)**

The ID of the task executions from the Maintenance Window execution.

Type: array of Strings

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

**WindowExecutionId (p. 80)**

The ID of the Maintenance Window execution.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# GetMaintenanceWindowExecutionTask

Retrieves the details about a specific task executed as part of a Maintenance Window execution.

## Request Syntax

```
{
  "TaskId": "string",
  "WindowExecutionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### TaskId (p. 82)

The ID of the specific task execution in the Maintenance Window task that should be retrieved.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: Yes

### WindowExecutionId (p. 82)

The ID of the Maintenance Window execution that includes the task.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: Yes

## Response Syntax

```
{
  "EndTime": number,
  "MaxConcurrency": "string",
  "MaxErrors": "string",
  "Priority": number,
  "ServiceRole": "string",
  "StartTime": number,
  "Status": "string",
  "StatusDetails": "string",
  "TaskArn": "string",
  "TaskExecutionId": "string",
  "TaskParameters": [
    {
      "string": {
        "Values": [ "string" ]
      }
    }
  ],
}
```

```
"Type": "string",  
"WindowExecutionId": "string"  
}
```

## Response Elements

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

### EndTime (p. 82)

The time the task execution completed.  
Type: Timestamp

### MaxConcurrency (p. 82)

The defined maximum number of task executions that could be run in parallel.  
Type: String  
Length Constraints: Minimum length of 1. Maximum length of 7.  
Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

### MaxErrors (p. 82)

The defined maximum number of task execution errors allowed before scheduling of the task execution would have been stopped.  
Type: String  
Length Constraints: Minimum length of 1. Maximum length of 7.  
Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

### Priority (p. 82)

The priority of the task.  
Type: Integer  
Valid Range: Minimum value of 0.

### ServiceRole (p. 82)

The role that was assumed when executing the task.  
Type: String

### StartTime (p. 82)

The time the task execution started.  
Type: Timestamp

### Status (p. 82)

The status of the task.  
Type: String  
Valid Values: `PENDING | IN_PROGRESS | SUCCESS | FAILED | TIMED_OUT | CANCELLING | CANCELLED | SKIPPED_OVERLAPPING`

### StatusDetails (p. 82)

The details explaining the Status. Only available for certain status values.  
Type: String  
Length Constraints: Minimum length of 0. Maximum length of 250.

### TaskArn (p. 82)

The ARN of the executed task.  
Type: String  
Length Constraints: Minimum length of 1. Maximum length of 1600.

### TaskExecutionId (p. 82)

The ID of the specific task execution in the Maintenance Window task that was retrieved.  
Type: String  
Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

**TaskParameters (p. 82)**

The parameters passed to the task when it was executed. The map has the following format:

Key: string,  $1 \leq \text{length} \leq 255$

Value: an array of strings where each string  $1 \leq \text{length} \leq 255$

Type: array of String to [MaintenanceWindowTaskParameterValueExpression \(p. 203\)](#) object maps

**Type (p. 82)**

The type of task executed.

Type: String

Valid Values: RUN\_COMMAND

**WindowExecutionId (p. 82)**

The ID of the Maintenance Window execution that includes the task.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# GetParameterHistory

Query a list of all parameters used by the AWS account.

## Request Syntax

```
{
  "MaxResults": number,
  "Name": "string",
  "NextToken": "string",
  "WithDecryption": boolean
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### MaxResults (p. 85)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### Name (p. 85)

The name of a parameter you want to query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?!^([aA][wW][sS]|[sS][sS][mM]))(?:^[a-zA-Z0-9_.-]*$).*`

Required: Yes

### NextToken (p. 85)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

### WithDecryption (p. 85)

Return decrypted values for secure string parameters. This flag is ignored for String and StringList parameter types.

Type: Boolean

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Parameters": [
    {
      "Description": "string",
      "KeyId": "string",
      "LastModifiedDate": number,

```



```
    "LastModifiedUser": "string",  
    "Name": "string",  
    "Type": "string",  
    "Value": "string"  
  }  
]  
}
```

## Response Elements

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

### NextToken (p. 85)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### Parameters (p. 85)

A list of parameters returned by the request.

Type: array of [ParameterHistory \(p. 206\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidNextToken

The specified token is not valid.

HTTP Status Code: 400

### ParameterNotFound

The parameter could not be found. Verify the name and try again.

HTTP Status Code: 400

# GetParameters

Get a list of parameters used by the AWS account.>

## Request Syntax

```
{  
  "Names": [ "string" ],  
  "WithDecryption": boolean  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Names (p. 87)

Names of the parameters for which you want to query information.

Type: array of Strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?!^([aA][wW][sS]|[sS][sS][mM]))(?!^[a-zA-Z0-9_.-]*$).*`

Required: Yes

### WithDecryption (p. 87)

Return decrypted secure string value. Return decrypted values for secure string parameters. This flag is ignored for String and StringList parameter types.

Type: Boolean

Required: No

## Response Syntax

```
{  
  "InvalidParameters": [ "string" ],  
  "Parameters": [  
    {  
      "Name": "string",  
      "Type": "string",  
      "Value": "string"  
    }  
  ]  
}
```

## Response Elements

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

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

### InvalidParameters (p. 87)

A list of parameters that are not formatted correctly or do not run when executed.

Type: array of Strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?!^([aA][wW][sS]|[sS][sS][mM]))(?!^[a-zA-Z0-9_.-]*$).*`

#### **Parameters (p. 87)**

A list of parameters used by the AWS account.

Type: array of [Parameter \(p. 205\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

#### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# ListAssociations

Lists the associations for the specified SSM document or instance.

## Request Syntax

```
{
  "AssociationFilterList": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### AssociationFilterList (p. 89)

One or more filters. Use a filter to return a more specific list of results.

Type: array of [AssociationFilter \(p. 148\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

### MaxResults (p. 89)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 89)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "Associations": [
    {
      "AssociationId": "string",
      "DocumentVersion": "string",
      "InstanceId": "string",
      "LastExecutionDate": number,
      "Name": "string",
      "Overview": {
        "AssociationStatusAggregatedCount": {
```

```
        "string" : number
      },
      "DetailedStatus": "string",
      "Status": "string"
    },
    "ScheduleExpression": "string",
    "Targets": [
      {
        "Key": "string",
        "Values": [ "string" ]
      }
    ]
  },
  "NextToken": "string"
}
```

## Response Elements

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

### Associations (p. 89)

The associations.

Type: array of [Association \(p. 145\)](#) objects

### NextToken (p. 89)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidNextToken

The specified token is not valid.

HTTP Status Code: 400

# ListCommandInvocations

An invocation is copy of a command sent to a specific instance. A command can apply to one or more instances. A command invocation applies to one instance. For example, if a user executes `SendCommand` against three instances, then a command invocation is created for each requested instance ID. `ListCommandInvocations` provide status about command execution.

## Request Syntax

```
{
  "CommandId": "string",
  "Details": boolean,
  "Filters": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "InstanceId": "string",
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### CommandId (p. 91)

(Optional) The invocations for a specific command ID.

Type: String

Length Constraints: Fixed length of 36.

Required: No

### Details (p. 91)

(Optional) If set this returns the response of the command executions and any command output. By default this is set to `False`.

Type: Boolean

Required: No

### Filters (p. 91)

(Optional) One or more filters. Use a filter to return a more specific list of results.

Type: array of [CommandFilter](#) (p. 159) objects

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Required: No

### InstanceId (p. 91)

(Optional) The command execution details for a specific instance ID.

Type: String

Pattern: (<sup>i</sup>(\w{8}|\w{17})\$) | (<sup>mi</sup>(\w{17})\$)

Required: No

### MaxResults (p. 91)

(Optional) The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

#### NextToken (p. 91)

(Optional) The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "CommandInvocations": [
    {
      "CommandId": "string",
      "CommandPlugins": [
        {
          "Name": "string",
          "Output": "string",
          "OutputS3BucketName": "string",
          "OutputS3KeyPrefix": "string",
          "OutputS3Region": "string",
          "ResponseCode": number,
          "ResponseFinishDateTime": number,
          "ResponseStartDateTime": number,
          "StandardErrorUrl": "string",
          "StandardOutputUrl": "string",
          "Status": "string",
          "StatusDetails": "string"
        }
      ],
      "Comment": "string",
      "DocumentName": "string",
      "InstanceId": "string",
      "InstanceName": "string",
      "NotificationConfig": {
        "NotificationArn": "string",
        "NotificationEvents": [ "string" ],
        "NotificationType": "string"
      },
      "RequestedDateTime": number,
      "ServiceRole": "string",
      "StandardErrorUrl": "string",
      "StandardOutputUrl": "string",
      "Status": "string",
      "StatusDetails": "string",
      "TraceOutput": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

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

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

**CommandInvocations (p. 92)**

(Optional) A list of all invocations.

Type: array of [CommandInvocation \(p. 160\)](#) objects

**NextToken (p. 92)**

(Optional) The token for the next set of items to return. (You received this token from a previous call.)

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

**InvalidCommandId**

HTTP Status Code: 400

**InvalidFilterKey**

The specified key is not valid.

HTTP Status Code: 400

**InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400



# ListCommands

Lists the commands requested by users of the AWS account.

## Request Syntax

```
{
  "CommandId": "string",
  "Filters": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "InstanceId": "string",
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### CommandId (p. 94)

(Optional) If provided, lists only the specified command.

Type: String

Length Constraints: Fixed length of 36.

Required: No

### Filters (p. 94)

(Optional) One or more filters. Use a filter to return a more specific list of results.

Type: array of [CommandFilter \(p. 159\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Required: No

### InstanceId (p. 94)

(Optional) Lists commands issued against this instance ID.

Type: String

Pattern: (^i-(\w{8}|\w{17}))\$|^mi-\w{17}\$

Required: No

### MaxResults (p. 94)

(Optional) The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 94)

(Optional) The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "Commands": [
    {
      "CommandId": "string",
      "Comment": "string",
      "CompletedCount": number,
      "DocumentName": "string",
      "ErrorCount": number,
      "ExpiresAfter": number,
      "InstanceIds": [ "string" ],
      "MaxConcurrency": "string",
      "MaxErrors": "string",
      "NotificationConfig": {
        "NotificationArn": "string",
        "NotificationEvents": [ "string" ],
        "NotificationType": "string"
      },
      "OutputS3BucketName": "string",
      "OutputS3KeyPrefix": "string",
      "OutputS3Region": "string",
      "Parameters": {
        "string": [ "string" ]
      },
      "RequestedDateTime": number,
      "ServiceRole": "string",
      "Status": "string",
      "StatusDetails": "string",
      "TargetCount": number,
      "Targets": [
        {
          "Key": "string",
          "Values": [ "string" ]
        }
      ]
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

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

### Commands (p. 95)

(Optional) The list of commands requested by the user.  
Type: array of [Command \(p. 156\)](#) objects

### NextToken (p. 95)

(Optional) The token for the next set of items to return. (You received this token from a previous call.)  
Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidCommandId**

HTTP Status Code: 400

### **InvalidFilterKey**

The specified key is not valid.

HTTP Status Code: 400

### **InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

### **InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

# ListDocuments

Describes one or more of your SSM documents.

## Request Syntax

```
{
  "DocumentFilterList": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### DocumentFilterList (p. 97)

One or more filters. Use a filter to return a more specific list of results.

Type: array of [DocumentFilter \(p. 171\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

### MaxResults (p. 97)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 97)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "DocumentIdentifiers": [
    {
      "DocumentType": "string",
      "DocumentVersion": "string",
      "Name": "string",
      "Owner": "string",
      "PlatformTypes": [ "string" ],
      "SchemaVersion": "string"
    }
  ]
}
```

```
  ],  
  "NextToken": "string"  
}
```

## Response Elements

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

### **DocumentIdentifiers (p. 97)**

The names of the SSM documents.

Type: array of [DocumentIdentifier \(p. 172\)](#) objects

### **NextToken (p. 97)**

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidFilterKey**

The specified key is not valid.

HTTP Status Code: 400

### **InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

# ListDocumentVersions

List all versions for a document.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### MaxResults (p. 99)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### Name (p. 99)

The name of the document about which you want version information.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: Yes

### NextToken (p. 99)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

## Response Syntax

```
{
  "DocumentVersions": [
    {
      "CreateDate": number,
      "DocumentVersion": "string",
      "IsDefaultVersion": boolean,
      "Name": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

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

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

**DocumentVersions (p. 99)**

The document versions.

Type: array of [DocumentVersionInfo \(p. 174\)](#) objects

Array Members: Minimum number of 1 item.

**NextToken (p. 99)**

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

**InvalidDocument**

The specified document does not exist.

HTTP Status Code: 400

**InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

# ListInventoryEntries

A list of inventory items returned by the request.

## Request Syntax

```
{
  "Filters": [
    {
      "Key": "string",
      "Type": "string",
      "Values": [ "string" ]
    }
  ],
  "InstanceId": "string",
  "MaxResults": number,
  "NextToken": "string",
  "TypeName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Filters (p. 101)

One or more filters. Use a filter to return a more specific list of results.

Type: array of [InventoryFilter \(p. 186\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

### InstanceId (p. 101)

The instance ID for which you want inventory information.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: Yes

### MaxResults (p. 101)

The maximum number of items to return for this call. The call also returns a token that you can specify in a subsequent call to get the next set of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken (p. 101)

The token for the next set of items to return. (You received this token from a previous call.)

Type: String

Required: No

### TypeName (p. 101)

The type of inventory item for which you want information.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.



Pattern: `^(AWS|Custom):.*$`  
Required: Yes

## Response Syntax

```
{
  "CaptureTime": "string",
  "Entries": [
    {
      "string": "string"
    }
  ],
  "InstanceId": "string",
  "NextToken": "string",
  "SchemaVersion": "string",
  "TypeName": "string"
}
```

## Response Elements

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

### CaptureTime (p. 102)

The time that inventory information was collected for the instance(s).

Type: String

Pattern: `^(20)[0-9][0-9]-(0[1-9]|1[012])-([12][0-9]|3[01]|0[1-9])(T)(2[0-3]|0-1)[0-9])(:[0-5][0-9])(:[0-5][0-9])(Z)$`

### Entries (p. 102)

A list of inventory items on the instance(s).

Type: array of String to String maps

Array Members: Minimum number of 0 items. Maximum number of 10000 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

### InstanceId (p. 102)

The instance ID targeted by the request to query inventory information.

Type: String

Pattern: `(^i-(\w{8}|\w{17})$)|(^mi-\w{17}$)`

### NextToken (p. 102)

The token to use when requesting the next set of items. If there are no additional items to return, the string is empty.

Type: String

### SchemaVersion (p. 102)

The inventory schema version used by the instance(s).

Type: String

Pattern: `^([0-9]{1,6})(\.[0-9]{1,6})$`

### TypeName (p. 102)

The type of inventory item returned by the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(AWS|Custom):.*$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidFilter**

The filter name is not valid. Verify the you entered the correct name and try again.

HTTP Status Code: 400

### **InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

### **InvalidNextToken**

The specified token is not valid.

HTTP Status Code: 400

### **InvalidTypeNameException**

The parameter type name is not valid.

HTTP Status Code: 400

# ListTagsForResource

Returns a list of the tags assigned to the specified resource.

## Request Syntax

```
{  
  "ResourceId": "string",  
  "ResourceType": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### ResourceId (p. 104)

The resource ID for which you want to see a list of tags.

Type: String

Required: Yes

### ResourceType (p. 104)

Returns a list of tags for a specific resource type.

Type: String

Valid Values: `ManagedInstance` | `MaintenanceWindow` | `Parameter`

Required: Yes

## Response Syntax

```
{  
  "TagList": [  
    {  
      "Key": "string",  
      "Value": "string"  
    }  
  ]  
}
```

## Response Elements

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

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

### TagList (p. 104)

A list of tags.

Type: array of [Tag \(p. 214\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

**InvalidResourceId**

The resource ID is not valid. Verify that you entered the correct ID and try again.

HTTP Status Code: 400

**InvalidResourceType**

The resource type is not valid. If you are attempting to tag an instance, the instance must be a registered, managed instance.

HTTP Status Code: 400

# ModifyDocumentPermission

Share a document publicly or privately. If you share a document privately, you must specify the AWS user account IDs for those people who can use the document. If you share a document publicly, you must specify *All* as the account ID.

## Request Syntax

```
{
  "AccountIdsToAdd": [ "string" ],
  "AccountIdsToRemove": [ "string" ],
  "Name": "string",
  "PermissionType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### AccountIdsToAdd (p. 106)

The AWS user accounts that should have access to the document. The account IDs can either be a group of account IDs or *All*.

Type: array of Strings

Array Members: Maximum number of 20 items.

Pattern: (?i)all|[0-9]{1,2}

Required: No

### AccountIdsToRemove (p. 106)

The AWS user accounts that should no longer have access to the document. The AWS user account can either be a group of account IDs or *All*. This action has a higher priority than *AccountIdsToAdd*. If you specify an account ID to add and the same ID to remove, the system removes access to the document.

Type: array of Strings

Array Members: Maximum number of 20 items.

Pattern: (?i)all|[0-9]{1,2}

Required: No

### Name (p. 106)

The name of the document that you want to share.

Type: String

Pattern: ^[a-zA-Z0-9\_\-\.]{3,128}\$

Required: Yes

### PermissionType (p. 106)

The permission type for the document. The permission type can be *Share*.

Type: String

Valid Values: *Share*

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 \(p. 233\)](#).

### **DocumentLimitExceeded**

You can have at most 200 active SSM documents.

HTTP Status Code: 400

### **DocumentPermissionLimit**

The document cannot be shared with more AWS user accounts. You can share a document with a maximum of 20 accounts. You can publicly share up to five documents. If you need to increase this limit, contact AWS Support.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidDocument**

The specified document does not exist.

HTTP Status Code: 400

### **InvalidPermissionType**

The permission type is not supported. *Share* is the only supported permission type.

HTTP Status Code: 400

# PutInventory

Bulk update custom inventory items on one more instance. The request adds an inventory item, if it doesn't already exist, or updates an inventory item, if it does exist.

## Request Syntax

```
{
  "InstanceId": "string",
  "Items": [
    {
      "CaptureTime": "string",
      "Content": [
        {
          "string": "string"
        }
      ],
      "ContentHash": "string",
      "SchemaVersion": "string",
      "TypeName": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### InstanceId (p. 108)

One or more instance IDs where you want to add or update inventory items.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: Yes

### Items (p. 108)

The inventory items that you want to add or update on instances.

Type: array of [InventoryItem \(p. 187\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 30 items.

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 \(p. 233\)](#).

### CustomSchemaCountLimitExceededException

You have exceeded the limit for custom schemas. Delete one or more custom schemas and try again.

HTTP Status Code: 400

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

**InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**InvalidItemContentException**

One or more content items is not valid.

HTTP Status Code: 400

**InvalidTypeNameException**

The parameter type name is not valid.

HTTP Status Code: 400

**ItemContentMismatchException**

The inventory item has invalid content.

HTTP Status Code: 400

**ItemSizeLimitExceededException**

The inventory item size has exceeded the size limit.

HTTP Status Code: 400

**TotalSizeLimitExceededException**

The size of inventory data has exceeded the total size limit for the resource.

HTTP Status Code: 400

**UnsupportedInventorySchemaVersionException**

Inventory item type schema version has to match supported versions in the service. Check output of `GetInventorySchema` to see the available schema version for each type.

HTTP Status Code: 400



# PutParameter

Add one or more paramaters to the system.

## Request Syntax

```
{  
  "Description": "string",  
  "KeyId": "string",  
  "Name": "string",  
  "Overwrite": boolean,  
  "Type": "string",  
  "Value": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Description (p. 110)

Information about the parameter that you want to add to the system

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

### KeyId (p. 110)

The parameter key ID that you want to add to the system.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

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

Required: No

### Name (p. 110)

The name of the parameter that you want to add to the system.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?!^([aA][wW][sS]|[sS][sS][mM]))(?:^[a-zA-Z0-9_-.]*$).*`

Required: Yes

### Overwrite (p. 110)

Overwrite an existing parameter.

Type: Boolean

Required: No

### Type (p. 110)

The type of parameter that you want to add to the system.

Type: String

Valid Values: `String` | `StringList` | `SecureString`

Required: Yes

### Value (p. 110)

The parameter value that you want to add to the system.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?: (?!(\\{.*\\})) )*$`

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 \(p. 233\)](#).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidKeyId**

The query key ID is not valid.

HTTP Status Code: 400

### **ParameterAlreadyExists**

The parameter already exists. You can't create duplicate parameters.

HTTP Status Code: 400

### **ParameterLimitExceeded**

You have exceeded the number of parameters for this AWS account. Delete one or more parameters and try again.

HTTP Status Code: 400

### **TooManyUpdates**

There are concurrent updates for a resource that supports one update at a time.

HTTP Status Code: 400

### **UnsupportedParameterType**

The parameter type is not supported.

HTTP Status Code: 400

# RegisterTargetWithMaintenanceWindow

Registers a target with a Maintenance Window.

## Request Syntax

```
{
  "ClientToken": "string",
  "OwnerInformation": "string",
  "ResourceType": "string",
  "Targets": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "WindowId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### ClientToken (p. 112)

User-provided idempotency token.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

### OwnerInformation (p. 112)

User-provided value that will be included in any CloudWatch events raised while running tasks for these targets in this Maintenance Window.

Type: String

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

Required: No

### ResourceType (p. 112)

The type of target being registered with the Maintenance Window.

Type: String

Valid Values: INSTANCE

Required: Yes

### Targets (p. 112)

The targets (either instances or tags). Instances are specified using Key=instanceids,Values=<instanceid1>,<instanceid2>. Tags are specified using Key=<tag name>,Values=<tag value>.

Type: array of [Target](#) (p. 215) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: Yes

### WindowId (p. 112)

The ID of the Maintenance Window the target should be registered with.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

## Response Syntax

```
{  
  "WindowTargetId": "string"  
}
```

## Response Elements

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

### **WindowTargetId** (p. 113)

The ID of the target definition in this Maintenance Window.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

### **IdempotentParameterMismatch**

Error returned when an idempotent operation is retried and the parameters don't match the original call to the API with the same idempotency token.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **ResourceLimitExceededException**

Error returned when the caller has exceeded the default resource limits (e.g. too many Maintenance Windows have been created).

HTTP Status Code: 400

# RegisterTaskWithMaintenanceWindow

Adds a new task to a Maintenance Window.

## Request Syntax

```
{
  "ClientToken": "string",
  "LoggingInfo": {
    "S3BucketName": "string",
    "S3KeyPrefix": "string",
    "S3Region": "string"
  },
  "MaxConcurrency": "string",
  "MaxErrors": "string",
  "Priority": number,
  "ServiceRoleArn": "string",
  "Targets": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "TaskArn": "string",
  "TaskParameters": {
    "string": {
      "Values": [ "string" ]
    }
  },
  "TaskType": "string",
  "WindowId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### ClientToken (p. 114)

User-provided idempotency token.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

### LoggingInfo (p. 114)

A structure containing information about an Amazon S3 bucket to write instance-level logs to.

Type: [LoggingInfo](#) (p. 192) object

Required: No

### MaxConcurrency (p. 114)

The maximum number of targets this task can be run for in parallel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 7.

Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[[1][0][0][%]|[0-9]?]`

Required: Yes

#### MaxErrors (p. 114)

The maximum number of errors allowed before this task stops being scheduled.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 7.

Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

Required: Yes

#### Priority (p. 114)

The priority of the task in the Maintenance Window, the lower the number the higher the priority. Tasks in a Maintenance Window are scheduled in priority order with tasks that have the same priority scheduled in parallel.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### ServiceRoleArn (p. 114)

The role that should be assumed when executing the task.

Type: String

Required: Yes

#### Targets (p. 114)

The targets (either instances or tags). Instances are specified using `Key=instanceids,Values=<instanceid1>,<instanceid2>`. Tags are specified using `Key=<tag name>,Values=<tag value>`.

Type: array of [Target \(p. 215\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: Yes

#### TaskArn (p. 114)

The ARN of the task to execute

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Required: Yes

#### TaskParameters (p. 114)

The parameters that should be passed to the task when it is executed.

Type: String to [MaintenanceWindowTaskParameterValueExpression \(p. 203\)](#) object map

Required: No

#### TaskType (p. 114)

The type of task being registered.

Type: String

Valid Values: `RUN_COMMAND`

Required: Yes

#### WindowId (p. 114)

The id of the Maintenance Window the task should be added to.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

## Response Syntax

```
{  
  "WindowTaskId": "string"
```

```
}
```

## Response Elements

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

### **WindowTaskId** (p. 115)

The id of the task in the Maintenance Window.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

### **IdempotentParameterMismatch**

Error returned when an idempotent operation is retried and the parameters don't match the original call to the API with the same idempotency token.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **ResourceLimitExceededException**

Error returned when the caller has exceeded the default resource limits (e.g. too many Maintenance Windows have been created).

HTTP Status Code: 400

# RemoveTagsFromResource

Removes all tags from the specified resource.

## Request Syntax

```
{  
  "ResourceId": "string",  
  "ResourceType": "string",  
  "TagKeys": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### ResourceId (p. 117)

The resource ID for which you want to remove tags.

Type: String

Required: Yes

### ResourceType (p. 117)

The type of resource of which you want to remove a tag.

Type: String

Valid Values: `ManagedInstance` | `MaintenanceWindow` | `Parameter`

Required: Yes

### TagKeys (p. 117)

Tag keys that you want to remove from the specified resource.

Type: array of Strings

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

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

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. 233).

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidResourceId

The resource ID is not valid. Verify that you entered the correct ID and try again.

HTTP Status Code: 400

### InvalidResourceType

The resource type is not valid. If you are attempting to tag an instance, the instance must be a registered, managed instance.



HTTP Status Code: 400

# SendCommand

Executes commands on one or more remote instances.

## Request Syntax

```
{
  "Comment": "string",
  "DocumentHash": "string",
  "DocumentHashType": "string",
  "DocumentName": "string",
  "InstanceIds": [ "string" ],
  "MaxConcurrency": "string",
  "MaxErrors": "string",
  "NotificationConfig": {
    "NotificationArn": "string",
    "NotificationEvents": [ "string" ],
    "NotificationType": "string"
  },
  "OutputS3BucketName": "string",
  "OutputS3KeyPrefix": "string",
  "OutputS3Region": "string",
  "Parameters": {
    "string": [ "string" ]
  },
  "ServiceRoleArn": "string",
  "Targets": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ],
  "TimeoutSeconds": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### Comment (p. 119)

User-specified information about the command, such as a brief description of what the command should do.

Type: String

Length Constraints: Maximum length of 100.

Required: No

### DocumentHash (p. 119)

The Sha256 or Sha1 hash created by the system when the document was created.

#### Note

Sha1 hashes have been deprecated.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**DocumentHashType (p. 119)**

Sha256 or Sha1.

**Note**

Sha1 hashes have been deprecated.

Type: String

Valid Values: Sha256 | Sha1

Required: No

**DocumentName (p. 119)**

Required. The name of the SSM document to execute. This can be an SSM public document or a custom document.

Type: String

Pattern: `^[a-zA-Z0-9_\-.:/]{3,128}$`

Required: Yes

**InstanceIds (p. 119)**

Required. The instance IDs where the command should execute. You can specify a maximum of 50 IDs.

Type: array of Strings

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Pattern: `(^i-(\w{8}|\w{17}))|(^mi-\w{17})$`

Required: No

**MaxConcurrency (p. 119)**

(Optional) The maximum number of instances that are allowed to execute the command at the same time. You can specify a number such as “10” or a percentage such as “10%”. The default value is 50. For more information about how to use `MaxConcurrency`, see [Executing a Command Using Amazon EC2 Run Command \(Linux\)](#) or [Executing a Command Using Amazon EC2 Run Command \(Windows\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 7.

Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

Required: No

**MaxErrors (p. 119)**

The maximum number of errors allowed without the command failing. When the command fails one more time beyond the value of `MaxErrors`, the systems stops sending the command to additional targets. You can specify a number like “10” or a percentage like “10%”. The default value is 50. For more information about how to use `MaxErrors`, see [Executing a Command Using Amazon EC2 Run Command \(Linux\)](#) or [Executing a Command Using Amazon EC2 Run Command \(Windows\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 7.

Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

Required: No

**NotificationConfig (p. 119)**

Configurations for sending notifications.

Type: [NotificationConfig \(p. 204\)](#) object

Required: No

**OutputS3BucketName (p. 119)**

The name of the S3 bucket where command execution responses should be stored.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Required: No

**OutputS3KeyPrefix (p. 119)**

The directory structure within the S3 bucket where the responses should be stored.

Type: String

Length Constraints: Maximum length of 500.

Required: No

**OutputS3Region (p. 119)**

(Optional) The region where the Amazon Simple Storage Service (Amazon S3) output bucket is located. The default value is the region where Run Command is being called.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 20.

Required: No

**Parameters (p. 119)**

The required and optional parameters specified in the SSM document being executed.

Type: String to array of Strings map

Required: No

**ServiceRoleArn (p. 119)**

The IAM role that Systems Manager uses to send notifications.

Type: String

Required: No

**Targets (p. 119)**

(Optional) An array of search criteria that targets instances using a `Key;Value` combination that you specify. `Targets` is required if you don't provide one or more instance IDs in the call. For more information about how to use `Targets`, see [Executing a Command Using Amazon EC2 Run Command \(Linux\)](#) or [Executing a Command Using Amazon EC2 Run Command \(Windows\)](#).

Type: array of [Target \(p. 215\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

**TimeoutSeconds (p. 119)**

If this time is reached and the command has not already started executing, it will not execute.

Type: Integer

Valid Range: Minimum value of 30. Maximum value of 2592000.

Required: No

## Response Syntax

```
{
  "Command": {
    "CommandId": "string",
    "Comment": "string",
    "CompletedCount": number,
    "DocumentName": "string",
    "ErrorCount": number,
    "ExpiresAfter": number,
    "InstanceIds": [ "string" ],
    "MaxConcurrency": "string",
    "MaxErrors": "string",
    "NotificationConfig": {
      "NotificationArn": "string",
      "NotificationEvents": [ "string" ],
      "NotificationType": "string"
    }
  }
}
```

```
    },
    "OutputS3BucketName": "string",
    "OutputS3KeyPrefix": "string",
    "OutputS3Region": "string",
    "Parameters": {
      "string": [ "string" ]
    },
    "RequestedDateTime": number,
    "ServiceRole": "string",
    "Status": "string",
    "StatusDetails": "string",
    "TargetCount": number,
    "Targets": [
      {
        "Key": "string",
        "Values": [ "string" ]
      }
    ]
  }
}
```

## Response Elements

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

### Command (p. 121)

The request as it was received by Systems Manager. Also provides the command ID which can be used for future references to this request.

Type: [Command \(p. 156\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### DuplicateInstanceId

You cannot specify an instance ID in more than one association.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidDocument

The specified document does not exist.

HTTP Status Code: 400

### InvalidInstanceid

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**InvalidNotificationConfig**

One or more configuration items is not valid. Verify that a valid Amazon Resource Name (ARN) was provided for an Amazon SNS topic.

HTTP Status Code: 400

**InvalidOutputFolder**

The S3 bucket does not exist.

HTTP Status Code: 400

**InvalidParameters**

You must specify values for all required parameters in the SSM document. You can only supply values to parameters defined in the SSM document.

HTTP Status Code: 400

**InvalidRole**

The role name can't contain invalid characters. Also verify that you specified an IAM role for notifications that includes the required trust policy. For information about configuring the IAM role for Run Command notifications, see [Getting Amazon SNS Notifications When a Command Changes Status](#) in the *Amazon Elastic Compute Cloud User Guide*.

HTTP Status Code: 400

**MaxDocumentSizeExceeded**

The size limit of an SSM document is 64 KB.

HTTP Status Code: 400

**UnsupportedPlatformType**

The document does not support the platform type of the given instance ID(s). For example, you sent an SSM document for a Windows instance to a Linux instance.

HTTP Status Code: 400

# StartAutomationExecution

Initiates execution of an Automation document.

## Request Syntax

```
{
  "DocumentName": "string",
  "DocumentVersion": "string",
  "Parameters": {
    "string": [ "string" ]
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### DocumentName (p. 124)

The name of the Automation document to use for this execution.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: Yes

### DocumentVersion (p. 124)

The version of the Automation document to use for this execution.

Type: String

Pattern: `([ $\$$ ]LATEST|[ $\$$ ]DEFAULT|^[1-9][0-9]* $\$$ )`

Required: No

### Parameters (p. 124)

A key-value map of execution parameters, which match the declared parameters in the Automation document.

Type: String to array of Strings map

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

## Response Syntax

```
{
  "AutomationExecutionId": "string"
}
```

## Response Elements

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

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

### AutomationExecutionId (p. 124)

The unique ID of a newly scheduled automation execution.

Type: String

Length Constraints: Fixed length of 36.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### **AutomationDefinitionNotFoundException**

An Automation document with the specified name could not be found.

HTTP Status Code: 400

### **AutomationDefinitionVersionNotFoundException**

An Automation document with the specified name and version could not be found.

HTTP Status Code: 400

### **AutomationExecutionLimitExceededException**

The number of simultaneously running Automation executions exceeded the allowable limit.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidAutomationExecutionParametersException**

The supplied parameters for invoking the specified Automation document are incorrect. For example, they may not match the set of parameters permitted for the specified Automation document.

HTTP Status Code: 400



# StopAutomationExecution

Stop an Automation that is currently executing.

## Request Syntax

```
{  
  "AutomationExecutionId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### **AutomationExecutionId** (p. 126)

The execution ID of the Automation to stop.

Type: String

Length Constraints: Fixed length of 36.

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. 233).

### **AutomationExecutionNotFoundException**

There is no automation execution information for the requested automation execution ID.

HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# UpdateAssociation

Updates an association. You can only update the document version, schedule, parameters, and Amazon S3 output of an association.

## Request Syntax

```
{
  "AssociationId": "string",
  "DocumentVersion": "string",
  "OutputLocation": {
    "S3Location": {
      "OutputS3BucketName": "string",
      "OutputS3KeyPrefix": "string",
      "OutputS3Region": "string"
    }
  },
  "Parameters": {
    "string": [ "string" ]
  },
  "ScheduleExpression": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### AssociationId (p. 127)

The ID of the association you want to update.

Type: String

Pattern: [0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}

Required: Yes

### DocumentVersion (p. 127)

The document version you want update for the association.

Type: String

Pattern: ([LATEST|DEFAULT|^([1-9][0-9]\*)\$)

Required: No

### OutputLocation (p. 127)

An Amazon S3 bucket where you want to store the results of this request.

```
"{ \"S3Location\": { \"OutputS3Region\": \"<region>\", \"OutputS3BucketName\": \"bucket name\", \"OutputS3KeyPrefix\": \"folder name\" } }"
```

Type: [InstanceAssociationOutputLocation](#) (p. 178) object

Required: No

### Parameters (p. 127)

The parameters you want to update for the association. If you create a parameter using Parameter Store, you can reference the parameter using `{{ssm:parameter-name}}`

Type: String to array of Strings map

Required: No

### ScheduleExpression (p. 127)

The cron expression used to schedule the association that you want to update. Supported expressions are every half, 1, 2, 4, 8 or 12 hour(s); every specified day and time of the week. For example: cron(0 0/30 \* 1/1 \* ? \*) to run every thirty minutes; cron(0 0 0/4 1/1 \* ? \*) to run every four hours; and cron(0 0 10 ? \* SUN \*) to run every Sunday at 10 a.m.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "AssociationDescription": {
    "AssociationId": "string",
    "Date": number,
    "DocumentVersion": "string",
    "InstanceId": "string",
    "LastExecutionDate": number,
    "LastSuccessfulExecutionDate": number,
    "LastUpdateAssociationDate": number,
    "Name": "string",
    "OutputLocation": {
      "S3Location": {
        "OutputS3BucketName": "string",
        "OutputS3KeyPrefix": "string",
        "OutputS3Region": "string"
      }
    },
  },
  "Overview": {
    "AssociationStatusAggregatedCount": {
      "string": number
    },
    "DetailedStatus": "string",
    "Status": "string"
  },
  "Parameters": {
    "string": [ "string" ]
  },
  "ScheduleExpression": "string",
  "Status": {
    "AdditionalInfo": "string",
    "Date": number,
    "Message": "string",
    "Name": "string"
  },
  "Targets": [
    {
      "Key": "string",
      "Values": [ "string" ]
    }
  ]
}
```

## Response Elements

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

### **AssociationDescription** (p. 128)

The description of the association that was updated.  
Type: [AssociationDescription](#) (p. 146) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **AssociationDoesNotExist**

The specified association does not exist.  
HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.  
HTTP Status Code: 400

### **InvalidDocumentVersion**

The document version is not valid or does not exist.  
HTTP Status Code: 400

### **InvalidOutputLocation**

The output location is not valid or does not exist.  
HTTP Status Code: 400

### **InvalidParameters**

You must specify values for all required parameters in the SSM document. You can only supply values to parameters defined in the SSM document.  
HTTP Status Code: 400

### **InvalidSchedule**

The schedule is invalid. Verify your cron or rate expression and try again.  
HTTP Status Code: 400

### **InvalidUpdate**

The update is not valid.  
HTTP Status Code: 400

### **TooManyUpdates**

There are concurrent updates for a resource that supports one update at a time.  
HTTP Status Code: 400

# UpdateAssociationStatus

Updates the status of the SSM document associated with the specified instance.

## Request Syntax

```
{
  "AssociationStatus": {
    "AdditionalInfo": "string",
    "Date": number,
    "Message": "string",
    "Name": "string"
  },
  "InstanceId": "string",
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 231\)](#).

The request accepts the following data in JSON format.

### AssociationStatus (p. 130)

The association status.

Type: [AssociationStatus \(p. 150\)](#) object

Required: Yes

### InstanceId (p. 130)

The ID of the instance.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: Yes

### Name (p. 130)

The name of the SSM document.

Type: String

Pattern: ^[a-zA-Z0-9\_\-\.]{3,128}\$

Required: Yes

## Response Syntax

```
{
  "AssociationDescription": {
    "AssociationId": "string",
    "Date": number,
    "DocumentVersion": "string",
    "InstanceId": "string",
    "LastExecutionDate": number,
    "LastSuccessfulExecutionDate": number,
    "LastUpdateAssociationDate": number,
    "Name": "string",
    "OutputLocation": {
      "S3Location": {
```

```
        "OutputS3BucketName": "string",
        "OutputS3KeyPrefix": "string",
        "OutputS3Region": "string"
    },
    "Overview": {
        "AssociationStatusAggregatedCount": {
            "string": number
        },
        "DetailedStatus": "string",
        "Status": "string"
    },
    "Parameters": {
        "string": [ "string" ]
    },
    "ScheduleExpression": "string",
    "Status": {
        "AdditionalInfo": "string",
        "Date": number,
        "Message": "string",
        "Name": "string"
    },
    "Targets": [
        {
            "Key": "string",
            "Values": [ "string" ]
        }
    ]
}
```

## Response Elements

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

### AssociationDescription (p. 130)

Information about the association.

Type: [AssociationDescription \(p. 146\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

### AssociationDoesNotExist

The specified association does not exist.

HTTP Status Code: 400

### InternalServerError

An error occurred on the server side.

HTTP Status Code: 400

### InvalidDocument

The specified document does not exist.

HTTP Status Code: 400

### InvalidInstanceId

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

**StatusUnchanged**

The updated status is the same as the current status.

HTTP Status Code: 400

**TooManyUpdates**

There are concurrent updates for a resource that supports one update at a time.

HTTP Status Code: 400

# UpdateDocument

The document you want to update.

## Request Syntax

```
{  
  "Content": "string",  
  "DocumentVersion": "string",  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### Content (p. 133)

The content in a document that you want to update.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### DocumentVersion (p. 133)

The version of the document that you want to update.

Type: String

Pattern: ([LATEST|DEFAULT|^([1-9][0-9]\*)\$)

Required: No

### Name (p. 133)

The name of the document that you want to update.

Type: String

Pattern: ^[a-zA-Z0-9\_\-\.]{3,128}\$

Required: Yes

## Response Syntax

```
{  
  "DocumentDescription": {  
    "CreateDate": number,  
    "DefaultVersion": "string",  
    "Description": "string",  
    "DocumentType": "string",  
    "DocumentVersion": "string",  
    "Hash": "string",  
    "HashType": "string",  
    "LatestVersion": "string",  
    "Name": "string",  
    "Owner": "string",  
    "Parameters": [  
      {  
        "DefaultValue": "string",
```



```
        "Description": "string",  
        "Name": "string",  
        "Type": "string"  
    },  
    ],  
    "PlatformTypes": [ "string" ],  
    "SchemaVersion": "string",  
    "Shal": "string",  
    "Status": "string"  
}  
}
```

## Response Elements

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

### **DocumentDescription** (p. 133)

A description of the document that was updated.  
Type: [DocumentDescription](#) (p. 169) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

### **DocumentVersionLimitExceeded**

The document has too many versions. Delete one or more document versions and try again.  
HTTP Status Code: 400

### **DuplicateDocumentContent**

The content of the association document matches another document. Change the content of the document and try again.  
HTTP Status Code: 400

### **InternalServerError**

An error occurred on the server side.  
HTTP Status Code: 400

### **InvalidDocument**

The specified document does not exist.  
HTTP Status Code: 400

### **InvalidDocumentContent**

The content for the SSM document is not valid.  
HTTP Status Code: 400

### **InvalidDocumentSchemaVersion**

The version of the document schema is not supported.  
HTTP Status Code: 400

### **InvalidDocumentVersion**

The document version is not valid or does not exist.  
HTTP Status Code: 400

### **MaxDocumentSizeExceeded**

The size limit of an SSM document is 64 KB.  
HTTP Status Code: 400

# UpdateDocumentDefaultVersion

Set the default version of a document.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### DocumentVersion (p. 135)

The version of a custom document that you want to set as the default version.

Type: String

Pattern: (<sup>^</sup>[1-9][0-9]\*<sup>\$</sup>)

Required: Yes

### Name (p. 135)

The name of a custom document that you want to set as the default version.

Type: String

Pattern: (<sup>^</sup>[a-zA-Z0-9\_\-\.]{3,128}<sup>\$</sup>)

Required: Yes

## Response Syntax

```
{
  "Description": {
    "DefaultVersion": "string",
    "Name": "string"
  }
}
```

## Response Elements

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

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

### Description (p. 135)

The description of a custom document that you want to set as the default version.

Type: [DocumentDefaultVersionDescription](#) (p. 168) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 233).

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

**InvalidDocument**

The specified document does not exist.

HTTP Status Code: 400

**InvalidDocumentSchemaVersion**

The version of the document schema is not supported.

HTTP Status Code: 400

**InvalidDocumentVersion**

The document version is not valid or does not exist.

HTTP Status Code: 400

# UpdateMaintenanceWindow

Updates an existing Maintenance Window. Only specified parameters are modified.

## Request Syntax

```
{  
  "AllowUnassociatedTargets": boolean,  
  "Cutoff": number,  
  "Duration": number,  
  "Enabled": boolean,  
  "Name": "string",  
  "Schedule": "string",  
  "WindowId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### AllowUnassociatedTargets (p. 137)

Whether targets must be registered with the Maintenance Window before tasks can be defined for those targets.

Type: Boolean

Required: No

### Cutoff (p. 137)

The number of hours before the end of the Maintenance Window that Systems Manager stops scheduling new tasks for execution.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 23.

Required: No

### Duration (p. 137)

The duration of the Maintenance Window in hours.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 24.

Required: No

### Enabled (p. 137)

Whether the Maintenance Window is enabled.

Type: Boolean

Required: No

### Name (p. 137)

The name of the Maintenance Window.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: No

### Schedule (p. 137)

The schedule of the Maintenance Window in the form of a cron or rate expression.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

**WindowId (p. 137)**

The ID of the Maintenance Window to update.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: Yes

## Response Syntax

```
{
  "AllowUnassociatedTargets": boolean,
  "Cutoff": number,
  "Duration": number,
  "Enabled": boolean,
  "Name": "string",
  "Schedule": "string",
  "WindowId": "string"
}
```

## Response Elements

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

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

**AllowUnassociatedTargets (p. 138)**

Whether targets must be registered with the Maintenance Window before tasks can be defined for those targets.

Type: Boolean

**Cutoff (p. 138)**

The number of hours before the end of the Maintenance Window that Systems Manager stops scheduling new tasks for execution.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 23.

**Duration (p. 138)**

The duration of the Maintenance Window in hours.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 24.

**Enabled (p. 138)**

Whether the Maintenance Window is enabled.

Type: Boolean

**Name (p. 138)**

The name of the Maintenance Window.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

**Schedule (p. 138)**

The schedule of the Maintenance Window in the form of a cron or rate expression.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

**WindowId (p. 138)**

The ID of the created Maintenance Window.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 233\)](#).

**DoesNotExistException**

Error returned when the ID specified for a resource (e.g. a Maintenance Window) doesn't exist.

HTTP Status Code: 400

**InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

# UpdateManagedInstanceRole

Assigns or changes an Amazon Identity and Access Management (IAM) role to the managed instance.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 231).

The request accepts the following data in JSON format.

### **iamRole** (p. 140)

The IAM role you want to assign or change.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

### **InstanceId** (p. 140)

The ID of the managed instance where you want to update the role.

Type: String

Pattern: `^mi-[0-9a-f]{17}$`

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. 233).

### **InternalServerError**

An error occurred on the server side.

HTTP Status Code: 400

### **InvalidInstanceId**

The following problems can cause this exception:

You do not have permission to access the instance.

The SSM agent is not running. On managed instances and Linux instances, verify that the SSM agent is running. On EC2 Windows instances, verify that the EC2Config service is running.

The SSM agent or EC2Config service is not registered to the SSM endpoint. Try reinstalling the SSM agent or EC2Config service.

The instance is not in valid state. Valid states are: Running, Pending, Stopped, Stopping. Invalid states are: Shutting-down and Terminated.

HTTP Status Code: 400

# Data Types

---

The Amazon Simple Systems Management Service API contains several data types that various actions use. This section describes each data type in detail.

**Note**

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [Activation](#) (p. 143)
- [Association](#) (p. 145)
- [AssociationDescription](#) (p. 146)
- [AssociationFilter](#) (p. 148)
- [AssociationOverview](#) (p. 149)
- [AssociationStatus](#) (p. 150)
- [AutomationExecution](#) (p. 151)
- [AutomationExecutionFilter](#) (p. 153)
- [AutomationExecutionMetadata](#) (p. 154)
- [Command](#) (p. 156)
- [CommandFilter](#) (p. 159)
- [CommandInvocation](#) (p. 160)
- [CommandPlugin](#) (p. 163)
- [CreateAssociationBatchRequestEntry](#) (p. 166)
- [DescribeActivationsFilter](#) (p. 167)
- [DocumentDefaultVersionDescription](#) (p. 168)
- [DocumentDescription](#) (p. 169)
- [DocumentFilter](#) (p. 171)
- [DocumentIdentifier](#) (p. 172)
- [DocumentParameter](#) (p. 173)
- [DocumentVersionInfo](#) (p. 174)
- [FailedCreateAssociation](#) (p. 175)
- [InstanceAggregatedAssociationOverview](#) (p. 176)
- [InstanceAssociation](#) (p. 177)
- [InstanceAssociationOutputLocation](#) (p. 178)



- [InstanceAssociationOutputUrl](#) (p. 179)
- [InstanceAssociationStatusInfo](#) (p. 180)
- [InstanceInformation](#) (p. 182)
- [InstanceInformationFilter](#) (p. 184)
- [InstanceInformationStringFilter](#) (p. 185)
- [InventoryFilter](#) (p. 186)
- [InventoryItem](#) (p. 187)
- [InventoryItemAttribute](#) (p. 188)
- [InventoryItemSchema](#) (p. 189)
- [InventoryResultEntity](#) (p. 190)
- [InventoryResultItem](#) (p. 191)
- [LoggingInfo](#) (p. 192)
- [MaintenanceWindowExecution](#) (p. 193)
- [MaintenanceWindowExecutionTaskIdentity](#) (p. 194)
- [MaintenanceWindowExecutionTaskInvocationIdentity](#) (p. 196)
- [MaintenanceWindowFilter](#) (p. 198)
- [MaintenanceWindowIdentity](#) (p. 199)
- [MaintenanceWindowTarget](#) (p. 200)
- [MaintenanceWindowTask](#) (p. 201)
- [MaintenanceWindowTaskParameterValueExpression](#) (p. 203)
- [NotificationConfig](#) (p. 204)
- [Parameter](#) (p. 205)
- [ParameterHistory](#) (p. 206)
- [ParameterMetadata](#) (p. 207)
- [ParametersFilter](#) (p. 208)
- [ResultAttribute](#) (p. 209)
- [S3OutputLocation](#) (p. 210)
- [S3OutputUrl](#) (p. 211)
- [StepExecution](#) (p. 212)
- [Tag](#) (p. 214)
- [Target](#) (p. 215)

# Activation

An activation registers one or more on-premises servers or virtual machines (VMs) with AWS so that you can configure those servers or VMs using Run Command. A server or VM that has been registered with AWS is called a managed instance.

## Contents

### ActivationId

The ID created by Systems Manager when you submitted the activation.

Type: String

Pattern: `^[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}$`

Required: No

### CreatedDate

The date the activation was created.

Type: Timestamp

Required: No

### DefaultInstanceName

A name for the managed instance when it is created.

Type: String

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

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

Required: No

### Description

A user defined description of the activation.

Type: String

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

Required: No

### ExpirationDate

The date when this activation can no longer be used to register managed instances.

Type: Timestamp

Required: No

### Expired

Whether or not the activation is expired.

Type: Boolean

Required: No

### IamRole

The Amazon Identity and Access Management (IAM) role to assign to the managed instance.

Type: String

Length Constraints: Maximum length of 64.

Required: No

### RegistrationLimit

The maximum number of managed instances that can be registered using this activation.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### RegistrationsCount

The number of managed instances already registered with this activation.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.  
Required: No

# Association

Describes an association of an SSM document and an instance.

## Contents

### AssociationId

The ID created by the system when you create an association. An association is a binding between a document and a set of targets with a schedule.

Type: String

Pattern: [0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}

Required: No

### DocumentVersion

The version of the document used in the association.

Type: String

Pattern: ([ \$ ]LATEST|[ \$ ]DEFAULT|^[1-9][0-9]\*\$)

Required: No

### InstanceId

The ID of the instance.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: No

### LastExecutionDate

The date on which the association was last run.

Type: Timestamp

Required: No

### Name

The name of the SSM document.

Type: String

Pattern: ^[a-zA-Z0-9\_\-.]{3,128}\$

Required: No

### Overview

Information about the association.

Type: [AssociationOverview \(p. 149\)](#) object

Required: No

### ScheduleExpression

A cron expression that specifies a schedule when the association runs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

### Targets

The instances targeted by the request to create an association.

Type: array of [Target \(p. 215\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

# AssociationDescription

Describes the parameters for a document.

## Contents

### AssociationId

The association ID.

Type: String

Pattern: [0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}

Required: No

### Date

The date when the association was made.

Type: Timestamp

Required: No

### DocumentVersion

The document version.

Type: String

Pattern: ([LATEST|DEFAULT|^[1-9][0-9]\*\$)

Required: No

### InstanceId

The ID of the instance.

Type: String

Pattern: (^i-(\w{8}|\w{17})\$)|(^mi-\w{17}\$)

Required: No

### LastExecutionDate

The date on which the association was last run.

Type: Timestamp

Required: No

### LastSuccessfulExecutionDate

The last date on which the association was successfully run.

Type: Timestamp

Required: No

### LastUpdateAssociationDate

The date when the association was last updated.

Type: Timestamp

Required: No

### Name

The name of the SSM document.

Type: String

Pattern: ^[a-zA-Z0-9\_\.]{3,128}\$

Required: No

### OutputLocation

An Amazon S3 bucket where you want to store the output details of the request.

Type: [InstanceAssociationOutputLocation](#) (p. 178) object

Required: No

### Overview

Information about the association.

Type: [AssociationOverview \(p. 149\)](#) object

Required: No

**Parameters**

A description of the parameters for a document.

Type: String to array of Strings map

Required: No

**ScheduleExpression**

A cron expression that specifies a schedule when the association runs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

**Status**

The association status.

Type: [AssociationStatus \(p. 150\)](#) object

Required: No

**Targets**

The instances targeted by the request.

Type: array of [Target \(p. 215\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

# AssociationFilter

Describes a filter.

## Contents

### key

The name of the filter.

Type: String

Valid Values: InstanceId | Name | AssociationId | AssociationStatusName |  
LastExecutedBefore | LastExecutedAfter

Required: Yes

### value

The filter value.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

# AssociationOverview

Information about the association.

## Contents

### **AssociationStatusAggregatedCount**

Returns the number of targets for the association status. For example, if you created an association with two instances, and one of them was successful, this would return the count of instances by status.

Type: String to Integer map

Required: No

### **DetailedStatus**

A detailed status of the association.

Type: String

Required: No

### **Status**

The status of the association. Status can be: `Pending`, `Success`, or `Failed`.

Type: String

Required: No



# AssociationStatus

Describes an association status.

## Contents

### **AdditionalInfo**

A user-defined string.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **Date**

The date when the status changed.

Type: Timestamp

Required: Yes

### **Message**

The reason for the status.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

### **Name**

The status.

Type: String

Valid Values: Pending | Success | Failed

Required: Yes

# AutomationExecution

Detailed information about the current state of an individual Automation execution.

## Contents

### AutomationExecutionId

The execution ID.  
Type: String  
Length Constraints: Fixed length of 36.  
Required: No

### AutomationExecutionStatus

The execution status of the Automation.  
Type: String  
Valid Values: Pending | InProgress | Success | TimedOut | Cancelled | Failed  
Required: No

### DocumentName

The name of the Automation document used during the execution.  
Type: String  
Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`  
Required: No

### DocumentVersion

The version of the document to use during execution.  
Type: String  
Pattern: `([$]LATEST|[$]DEFAULT|^[1-9][0-9]*$)`  
Required: No

### ExecutionEndTime

The time the execution finished.  
Type: Timestamp  
Required: No

### ExecutionStartTime

The time the execution started.  
Type: Timestamp  
Required: No

### FailureMessage

A message describing why an execution has failed, if the status is set to Failed.  
Type: String  
Required: No

### Outputs

The list of execution outputs as defined in the automation document.  
Type: String to array of Strings map  
Array Members: Minimum number of 0 items. Maximum number of 10 items.  
Length Constraints: Minimum length of 1. Maximum length of 512.  
Required: No

### Parameters

The key-value map of execution parameters, which were supplied when calling `StartAutomationExecution`.  
Type: String to array of Strings map  
Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

**StepExecutions**

A list of details about the current state of all steps that comprise an execution. An Automation document contains a list of steps that are executed in order.

Type: array of [StepExecution \(p. 212\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Required: No

# AutomationExecutionFilter

A filter used to match specific automation executions. This is used to limit the scope of Automation execution information returned.

## Contents

### Key

The aspect of the Automation execution information that should be limited.

Type: String

Valid Values: `DocumentNamePrefix` | `ExecutionStatus`

Required: Yes

### Values

The values used to limit the execution information associated with the filter's key.

Type: array of Strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 150.

Required: Yes

# AutomationExecutionMetadata

Details about a specific Automation execution.

## Contents

### AutomationExecutionId

The execution ID.

Type: String

Length Constraints: Fixed length of 36.

Required: No

### AutomationExecutionStatus

The status of the execution. Valid values include: Running, Succeeded, Failed, Timed out, or Cancelled.

Type: String

Valid Values: `Pending` | `InProgress` | `Success` | `TimedOut` | `Cancelled` | `Failed`

Required: No

### DocumentName

The name of the Automation document used during execution.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: No

### DocumentVersion

The document version used during the execution.

Type: String

Pattern: `([LATEST|DEFAULT|^[1-9][0-9]*$)`

Required: No

### ExecutedBy

The IAM role ARN of the user who executed the Automation.

Type: String

Required: No

### ExecutionEndTime

The time the execution finished. This is not populated if the execution is still in progress.

Type: Timestamp

Required: No

### ExecutionStartTime

The time the execution started.>

Type: Timestamp

Required: No

### LogFile

An Amazon S3 bucket where execution information is stored.

Type: String

Required: No

### Outputs

The list of execution outputs as defined in the Automation document.

Type: String to array of Strings map

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No



# Command

Describes a command request.

## Contents

### **CommandId**

A unique identifier for this command.

Type: String

Length Constraints: Fixed length of 36.

Required: No

### **Comment**

User-specified information about the command, such as a brief description of what the command should do.

Type: String

Length Constraints: Maximum length of 100.

Required: No

### **CompletedCount**

The number of targets for which the command invocation reached a terminal state. Terminal states include the following: `Success`, `Failed`, `Execution Timed Out`, `Delivery Timed Out`, `Canceled`, `Terminated`, or `Undeliverable`.

Type: Integer

Required: No

### **DocumentName**

The name of the SSM document requested for execution.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: No

### **ErrorCount**

The number of targets for which the status is `Failed` or `Execution Timed Out`.

Type: Integer

Required: No

### **ExpiresAfter**

If this time is reached and the command has not already started executing, it will not execute. Calculated based on the `ExpiresAfter` user input provided as part of the `SendCommand` API.

Type: Timestamp

Required: No

### **InstanceIds**

The instance IDs against which this command was requested.

Type: array of Strings

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Pattern: `(^i-(\w{8}|\w{17})$)|(^mi-\w{17}$)`

Required: No

### **MaxConcurrency**

The maximum number of instances that are allowed to execute the command at the same time.

You can specify a number of instances, such as 10, or a percentage of instances, such as 10%.

The default value is 50. For more information about how to use `MaxConcurrency`, see [Executing a Command Using Amazon EC2 Run Command \(Linux\)](#) or [Executing a Command Using Amazon EC2 Run Command \(Windows\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 7.

Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

Required: No

### **MaxErrors**

The maximum number of errors allowed before the system stops sending the command to additional targets. You can specify a number of errors, such as 10, or a percentage of errors, such as 10%. The default value is 50. For more information about how to use `MaxErrors`, see [Executing a Command Using Amazon EC2 Run Command \(Linux\)](#) or [Executing a Command Using Amazon EC2 Run Command \(Windows\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 7.

Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

Required: No

### **NotificationConfig**

Configurations for sending notifications about command status changes.

Type: [NotificationConfig \(p. 204\)](#) object

Required: No

### **OutputS3BucketName**

The S3 bucket where the responses to the command executions should be stored. This was requested when issuing the command.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Required: No

### **OutputS3KeyPrefix**

The S3 directory path inside the bucket where the responses to the command executions should be stored. This was requested when issuing the command.

Type: String

Length Constraints: Maximum length of 500.

Required: No

### **OutputS3Region**

The region where the Amazon Simple Storage Service (Amazon S3) output bucket is located. The default value is the region where Run Command is being called.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 20.

Required: No

### **Parameters**

The parameter values to be inserted in the SSM document when executing the command.

Type: String to array of Strings map

Required: No

### **RequestedDateTime**

The date and time the command was requested.

Type: Timestamp

Required: No

### **ServiceRole**

The IAM service role that Run Command uses to act on your behalf when sending notifications about command status changes.

Type: String

Required: No

### **Status**

The status of the command.



Type: String

Valid Values: Pending | InProgress | Success | Cancelled | Failed | TimedOut  
| Cancelling

Required: No

### StatusDetails

A detailed status of the command execution. `StatusDetails` includes more information than `Status` because it includes states resulting from error and concurrency control parameters. `StatusDetails` can show different results than `Status`. For more information about these statuses, see [Monitor Commands \(Linux\)](#) or [Monitor Commands \(Windows\)](#). `StatusDetails` can be one of the following values:

- Pending – The command has not been sent to any instances.
- In Progress – The command has been sent to at least one instance but has not reached a final state on all instances.
- Success – The command successfully executed on all invocations. This is a terminal state.
- Delivery Timed Out – The value of `MaxErrors` or more command invocations shows a status of `Delivery Timed Out`. This is a terminal state.
- Execution Timed Out – The value of `MaxErrors` or more command invocations shows a status of `Execution Timed Out`. This is a terminal state.
- Failed – The value of `MaxErrors` or more command invocations shows a status of `Failed`. This is a terminal state.
- Incomplete – The command was attempted on all instances and one or more invocations does not have a value of `Success` but not enough invocations failed for the status to be `Failed`. This is a terminal state.
- Canceled – The command was terminated before it was completed. This is a terminal state.
- Rate Exceeded – The number of instances targeted by the command exceeded the account limit for pending invocations. The system has canceled the command before executing it on any instance. This is a terminal state.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

Required: No

### TargetCount

The number of targets for the command.

Type: Integer

Required: No

### Targets

An array of search criteria that targets instances using a `Key;Value` combination that you specify. `Targets` is required if you don't provide one or more instance IDs in the call.

Type: array of [Target \(p. 215\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

# CommandFilter

Describes a command filter.

## Contents

### **key**

The name of the filter. For example, requested date and time.

Type: String

Valid Values: `InvokedAfter` | `InvokedBefore` | `Status`

Required: Yes

### **value**

The filter value. For example: June 30, 2015.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

# CommandInvocation

An invocation is copy of a command sent to a specific instance. A command can apply to one or more instances. A command invocation applies to one instance. For example, if a user executes `SendCommand` against three instances, then a command invocation is created for each requested instance ID. A command invocation returns status and detail information about a command you executed.

## Contents

### CommandId

The command against which this invocation was requested.

Type: String

Length Constraints: Fixed length of 36.

Required: No

### CommandPlugins

Type: array of [CommandPlugin \(p. 163\)](#) objects

Required: No

### Comment

User-specified information about the command, such as a brief description of what the command should do.

Type: String

Length Constraints: Maximum length of 100.

Required: No

### DocumentName

The document name that was requested for execution.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: No

### InstanceId

The instance ID in which this invocation was requested.

Type: String

Pattern: `(^i-(\w{8}|\w{17}))$|^mi-\w{17}$`

Required: No

### InstanceName

The name of the invocation target. For Amazon EC2 instances this is the value for the `aws:Name` tag. For on-premises instances, this is the name of the instance.

Type: String

Length Constraints: Maximum length of 255.

Required: No

### NotificationConfig

Configurations for sending notifications about command status changes on a per instance basis.

Type: [NotificationConfig \(p. 204\)](#) object

Required: No

### RequestedDateTime

The time and date the request was sent to this instance.

Type: Timestamp

Required: No

**ServiceRole**

The IAM service role that Run Command uses to act on your behalf when sending notifications about command status changes on a per instance basis.

Type: String

Required: No

**StandardErrorUrl**

The URL to the plugin's StdErr file in Amazon S3, if the Amazon S3 bucket was defined for the parent command. For an invocation, `StandardErrorUrl` is populated if there is just one plugin defined for the command, and the Amazon S3 bucket was defined for the command.

Type: String

Required: No

**StandardOutputUrl**

The URL to the plugin's StdOut file in Amazon S3, if the Amazon S3 bucket was defined for the parent command. For an invocation, `StandardOutputUrl` is populated if there is just one plugin defined for the command, and the Amazon S3 bucket was defined for the command.

Type: String

Required: No

**Status**

Whether or not the invocation succeeded, failed, or is pending.

Type: String

Valid Values: Pending | InProgress | Delayed | Success | Cancelled | TimedOut | Failed | Cancelling

Required: No

**StatusDetails**

A detailed status of the command execution for each invocation (each instance targeted by the command). `StatusDetails` includes more information than `Status` because it includes states resulting from error and concurrency control parameters. `StatusDetails` can show different results than `Status`. For more information about these statuses, see [Monitor Commands \(Linux\)](#) or [Monitor Commands \(Windows\)](#). `StatusDetails` can be one of the following values:

- Pending – The command has not been sent to the instance.
- In Progress – The command has been sent to the instance but has not reached a terminal state.
- Success – The execution of the command or plugin was successfully completed. This is a terminal state.
- Delivery Timed Out – The command was not delivered to the instance before the delivery timeout expired. Delivery timeouts do not count against the parent command's `MaxErrors` limit, but they do contribute to whether the parent command status is `Success` or `Incomplete`. This is a terminal state.
- Execution Timed Out – Command execution started on the instance, but the execution was not complete before the execution timeout expired. Execution timeouts count against the `MaxErrors` limit of the parent command. This is a terminal state.
- Failed – The command was not successful on the instance. For a plugin, this indicates that the result code was not zero. For a command invocation, this indicates that the result code for one or more plugins was not zero. Invocation failures count against the `MaxErrors` limit of the parent command. This is a terminal state.
- Canceled – The command was terminated before it was completed. This is a terminal state.
- Undeliverable – The command can't be delivered to the instance. The instance might not exist or might not be responding. Undeliverable invocations don't count against the parent command's `MaxErrors` limit and don't contribute to whether the parent command status is `Success` or `Incomplete`. This is a terminal state.
- Terminated – The parent command exceeded its `MaxErrors` limit and subsequent command invocations were canceled by the system. This is a terminal state.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

Required: No

**TraceOutput**

Gets the trace output sent by the agent.

Type: String

Length Constraints: Maximum length of 2500.

Required: No

# CommandPlugin

Describes plugin details.

## Contents

### Name

The name of the plugin. Must be one of the following: `aws:updateAgent`, `aws:domainjoin`, `aws:applications`, `aws:runPowerShellScript`, `aws:psmodule`, `aws:cloudWatch`, `aws:runShellScript`, or `aws:updateSSMAgent`.

Type: String

Length Constraints: Minimum length of 4.

Required: No

### Output

Output of the plugin execution.

Type: String

Length Constraints: Maximum length of 2500.

Required: No

### OutputS3BucketName

The S3 bucket where the responses to the command executions should be stored. This was requested when issuing the command. For example, in the following response:

```
test_folder/ab19cb99-a030-46dd-9dfc-8eSAMPLEPre-Fix/i-1234567876543/  
awsrunShellScript
```

`test_folder` is the name of the Amazon S3 bucket;

`ab19cb99-a030-46dd-9dfc-8eSAMPLEPre-Fix` is the name of the S3 prefix;

`i-1234567876543` is the instance ID;

`awsrunShellScript` is the name of the plugin.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Required: No

### OutputS3KeyPrefix

The S3 directory path inside the bucket where the responses to the command executions should be stored. This was requested when issuing the command. For example, in the following response:

```
test_folder/ab19cb99-a030-46dd-9dfc-8eSAMPLEPre-Fix/i-1234567876543/  
awsrunShellScript
```

`test_folder` is the name of the Amazon S3 bucket;

`ab19cb99-a030-46dd-9dfc-8eSAMPLEPre-Fix` is the name of the S3 prefix;

`i-1234567876543` is the instance ID;

`awsrunShellScript` is the name of the plugin.

Type: String

Length Constraints: Maximum length of 500.

Required: No

### OutputS3Region

The name of the region where the output is stored in Amazon S3.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 20.

Required: No

### ResponseCode

A numeric response code generated after executing the plugin.

Type: Integer

Required: No

**ResponseFinishDateTime**

The time the plugin stopped executing. Could stop prematurely if, for example, a cancel command was sent.

Type: Timestamp

Required: No

**ResponseStartDateTime**

The time the plugin started executing.

Type: Timestamp

Required: No

**StandardErrorUrl**

The URL for the complete text written by the plugin to stderr. If execution is not yet complete, then this string is empty.

Type: String

Required: No

**StandardOutputUrl**

The URL for the complete text written by the plugin to stdout in Amazon S3. If the Amazon S3 bucket for the command was not specified, then this string is empty.

Type: String

Required: No

**Status**

The status of this plugin. You can execute a document with multiple plugins.

Type: String

Valid Values: `Pending` | `InProgress` | `Success` | `TimedOut` | `Cancelled` | `Failed`

Required: No

**StatusDetails**

A detailed status of the plugin execution. `StatusDetails` includes more information than `Status` because it includes states resulting from error and concurrency control parameters. `StatusDetails` can show different results than `Status`. For more information about these statuses, see [Monitor Commands \(Linux\)](#) or [Monitor Commands \(Windows\)](#). `StatusDetails` can be one of the following values:

- **Pending** – The command has not been sent to the instance.
- **In Progress** – The command has been sent to the instance but has not reached a terminal state.
- **Success** – The execution of the command or plugin was successfully completed. This is a terminal state.
- **Delivery Timed Out** – The command was not delivered to the instance before the delivery timeout expired. Delivery timeouts do not count against the parent command's `MaxErrors` limit, but they do contribute to whether the parent command status is `Success` or `Incomplete`. This is a terminal state.
- **Execution Timed Out** – Command execution started on the instance, but the execution was not complete before the execution timeout expired. Execution timeouts count against the `MaxErrors` limit of the parent command. This is a terminal state.
- **Failed** – The command was not successful on the instance. For a plugin, this indicates that the result code was not zero. For a command invocation, this indicates that the result code for one or more plugins was not zero. Invocation failures count against the `MaxErrors` limit of the parent command. This is a terminal state.
- **Canceled** – The command was terminated before it was completed. This is a terminal state.
- **Undeliverable** – The command can't be delivered to the instance. The instance might not exist, or it might not be responding. Undeliverable invocations don't count against the parent

command's `MaxErrors` limit, and they don't contribute to whether the parent command status is `Success` or `Incomplete`. This is a terminal state.

- **Terminated** – The parent command exceeded its `MaxErrors` limit and subsequent command invocations were canceled by the system. This is a terminal state.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

Required: No



# CreateAssociationBatchRequestEntry

Describes the association of an SSM document and an instance.

## Contents

### DocumentVersion

The document version.

Type: String

Pattern: ([`$`]LATEST|[`$`]DEFAULT|^[1-9][0-9]\*\$)

Required: No

### InstancedId

The ID of the instance.

Type: String

Pattern: (^i-(\w{8}|\w{17}))\$|^mi-\w{17}\$)

Required: No

### Name

The name of the configuration document.

Type: String

Pattern: ^[a-zA-Z0-9\_\-\.]{3,128}\$

Required: Yes

### OutputLocation

An Amazon S3 bucket where you want to store the results of this request.

Type: [InstanceAssociationOutputLocation \(p. 178\)](#) object

Required: No

### Parameters

A description of the parameters for a document.

Type: String to array of Strings map

Required: No

### ScheduleExpression

A cron expression that specifies a schedule when the association runs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

### Targets

The instances targeted by the request.

Type: array of [Target \(p. 215\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

# DescribeActivationsFilter

Filter for the DescribeActivation API.

## Contents

### **FilterKey**

The name of the filter.

Type: String

Valid Values: `ActivationIds` | `DefaultInstanceName` | `IamRole`

Required: No

### **FilterValues**

The filter values.

Type: array of Strings

Required: No

# DocumentDefaultVersionDescription

A default version of a document.

## Contents

### **DefaultVersion**

The default version of the document.

Type: String

Pattern: ( [ \$ ] LATEST | [ \$ ] DEFAULT | ^ [ 1-9 ] [ 0-9 ] \* \$ )

Required: No

### **Name**

The name of the document.

Type: String

Pattern: ^ [ a-zA-Z0-9\_ \ - . ] { 3, 128 } \$

Required: No

# DocumentDescription

Describes an SSM document.

## Contents

### CreatedDate

The date when the SSM document was created.

Type: Timestamp

Required: No

### DefaultVersion

The default version.

Type: String

Pattern: ([`$`]`LATEST`|[`$`]`DEFAULT`|`^[1-9][0-9]*`)

Required: No

### Description

A description of the document.

Type: String

Required: No

### DocumentType

The type of document.

Type: String

Valid Values: `Command` | `Policy` | `Automation`

Required: No

### DocumentVersion

The document version.

Type: String

Pattern: ([`$`]`LATEST`|[`$`]`DEFAULT`|`^[1-9][0-9]*`)

Required: No

### Hash

The Sha256 or Sha1 hash created by the system when the document was created.

#### Note

Sha1 hashes have been deprecated.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### HashType

Sha256 or Sha1.

#### Note

Sha1 hashes have been deprecated.

Type: String

Valid Values: `Sha256` | `Sha1`

Required: No

### LatestVersion

The latest version of the document.

Type: String

Pattern: ([`$`]`LATEST`|[`$`]`DEFAULT`|`^[1-9][0-9]*`)

Required: No

**Name**

The name of the SSM document.

Type: String

Pattern: `^[a-zA-Z0-9_\-.:/]{3,128}$`

Required: No

**Owner**

The AWS user account of the person who created the document.

Type: String

Required: No

**Parameters**

A description of the parameters for a document.

Type: array of [DocumentParameter \(p. 173\)](#) objects

Required: No

**PlatformTypes**

The list of OS platforms compatible with this SSM document.

Type: array of Strings

Valid Values: `Windows` | `Linux`

Required: No

**SchemaVersion**

The schema version.

Type: String

Pattern: `([0-9]+\)\.([0-9]+)`

Required: No

**Sha1**

The SHA1 hash of the document, which you can use for verification purposes.

Type: String

Required: No

**Status**

The status of the SSM document.

Type: String

Valid Values: `Creating` | `Active` | `Updating` | `Deleting`

Required: No

# DocumentFilter

Describes a filter.

## Contents

### key

The name of the filter.

Type: String

Valid Values: Name | Owner | PlatformTypes | DocumentType

Required: Yes

### value

The value of the filter.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

# DocumentIdentifier

Describes the name of an SSM document.

## Contents

### DocumentType

The document type.

Type: String

Valid Values: `Command` | `Policy` | `Automation`

Required: No

### DocumentVersion

The document version.

Type: String

Pattern: (`[LATEST|DEFAULT|` $^{\{1-9\}[0-9]^*$ `)`

Required: No

### Name

The name of the SSM document.

Type: String

Pattern:  $^{\{a-zA-Z0-9_\-.:/\}\{3,128\}}$

Required: No

### Owner

The AWS user account of the person who created the document.

Type: String

Required: No

### PlatformTypes

The operating system platform.

Type: array of Strings

Valid Values: `Windows` | `Linux`

Required: No

### SchemaVersion

The schema version.

Type: String

Pattern: ( $[0-9]^+$ )\. $([0-9]^+)$

Required: No

# DocumentParameter

Parameters specified in the SSM document that execute on the server when the command is run.

## Contents

### DefaultValue

If specified, the default values for the parameters. Parameters without a default value are required. Parameters with a default value are optional.

Type: String

Required: No

### Description

A description of what the parameter does, how to use it, the default value, and whether or not the parameter is optional.

Type: String

Required: No

### Name

The name of the parameter.

Type: String

Required: No

### Type

The type of parameter. The type can be either "String" or "StringList".

Type: String

Valid Values: `String` | `StringList`

Required: No



## DocumentVersionInfo

Version information about the document.

### Contents

#### **CreatedDate**

The date the document was created.

Type: Timestamp

Required: No

#### **DocumentVersion**

The document version.

Type: String

Pattern: (`[$]`LATEST|`[$]`DEFAULT|`^[1-9][0-9]*$`)

Required: No

#### **IsDefaultVersion**

An identifier for the default version of the document.

Type: Boolean

Required: No

#### **Name**

The document name.

Type: String

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: No

# FailedCreateAssociation

Describes a failed association.

## Contents

### Entry

The association.

Type: [CreateAssociationBatchRequestEntry](#) (p. 166) object

Required: No

### Fault

The source of the failure.

Type: String

Valid Values: `Client` | `Server` | `Unknown`

Required: No

### Message

A description of the failure.

Type: String

Required: No

# InstanceAggregatedAssociationOverview

Status information about the aggregated associations.

## Contents

### **DetailedStatus**

Detailed status information about the aggregated associations.

Type: String

Required: No

### **InstanceAssociationStatusAggregatedCount**

The number of associations for the instance(s).

Type: String to Integer map

Required: No

# InstanceAssociation

One or more association documents on the instance.

## Contents

### **AssociationId**

The association ID.

Type: String

Pattern: [0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}

Required: No

### **Content**

The content of the association document for the instance(s).

Type: String

Length Constraints: Minimum length of 1.

Required: No

### **InstanceId**

The instance ID.

Type: String

Pattern: (^i-(\w{8}|\w{17}))\$|^mi-\w{17}\$

Required: No

# InstanceAssociationOutputLocation

An Amazon S3 bucket where you want to store the results of this request.

## Contents

### **S3Location**

An Amazon S3 bucket where you want to store the results of this request.

Type: [S3OutputLocation](#) (p. 210) object

Required: No

# InstanceAssociationOutputUrl

The URL of Amazon S3 bucket where you want to store the results of this request.

## Contents

### **S3OutputUrl**

The URL of Amazon S3 bucket where you want to store the results of this request.

Type: [S3OutputUrl](#) (p. 211) object

Required: No

# InstanceAssociationStatusInfo

Status information about the instance association.

## Contents

### AssociationId

The association ID.

Type: String

Pattern: [0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{12}

Required: No

### DetailedStatus

Detailed status information about the instance association.

Type: String

Required: No

### DocumentVersion

The association document versions.

Type: String

Pattern: ([LATEST|DEFAULT|^[1-9][0-9]\*\$)

Required: No

### ErrorCode

An error code returned by the request to create the association.

Type: String

Length Constraints: Maximum length of 10.

Required: No

### ExecutionDate

The date the instance association executed.

Type: Timestamp

Required: No

### ExecutionSummary

Summary information about association execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### InstanceId

The instance ID where the association was created.

Type: String

Pattern: (^i-(\w{8}|\w{17}))\$|^mi-\w{17}\$)

Required: No

### Name

The name of the association.

Type: String

Pattern: ^[a-zA-Z0-9\_\-\.]{3,128}\$

Required: No

### OutputUrl

A URL for an Amazon S3 bucket where you want to store the results of this request.

Type: [InstanceAssociationOutputUrl](#) (p. 179) object

Required: No

**Status**

Status information about the instance association.

Type: String

Required: No



# InstanceInformation

Describes a filter for a specific list of instances.

## Contents

### **ActivationId**

The activation ID created by Systems Manager when the server or VM was registered.

Type: String

Pattern: `^[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}$`

Required: No

### **AgentVersion**

The version of the SSM agent running on your Linux instance.

Type: String

Pattern: `^[0-9]{1,6}(\.[0-9]{1,6}){2,3}$`

Required: No

### **AssociationOverview**

Information about the association.

Type: [InstanceAggregatedAssociationOverview](#) (p. 176) object

Required: No

### **AssociationStatus**

The status of the association.

Type: String

Required: No

### **ComputerName**

The fully qualified host name of the managed instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

### **IamRole**

The Amazon Identity and Access Management (IAM) role assigned to EC2 instances or managed instances.

Type: String

Length Constraints: Maximum length of 64.

Required: No

### **InstanceId**

The instance ID.

Type: String

Pattern: `(^i-(\w{8}|\w{17}))$|^mi-\w{17}$`

Required: No

### **IPAddress**

The IP address of the managed instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 46.

Required: No

### **IsLatestVersion**

Indicates whether latest version of the SSM agent is running on your instance.

Type: Boolean

Required: No

**LastAssociationExecutionDate**

The date the association was last executed.

Type: Timestamp

Required: No

**LastPingDateTime**

The date and time when agent last pinged Systems Manager service.

Type: Timestamp

Required: No

**LastSuccessfulAssociationExecutionDate**

The last date the association was successfully run.

Type: Timestamp

Required: No

**Name**

The name of the managed instance.

Type: String

Required: No

**PingStatus**

Connection status of the SSM agent.

Type: String

Valid Values: `Online` | `ConnectionLost` | `Inactive`

Required: No

**PlatformName**

The name of the operating system platform running on your instance.

Type: String

Required: No

**PlatformType**

The operating system platform type.

Type: String

Valid Values: `Windows` | `Linux`

Required: No

**PlatformVersion**

The version of the OS platform running on your instance.

Type: String

Required: No

**RegistrationDate**

The date the server or VM was registered with AWS as a managed instance.

Type: Timestamp

Required: No

**ResourceType**

The type of instance. Instances are either EC2 instances or managed instances.

Type: String

Valid Values: `ManagedInstance` | `Document` | `EC2Instance`

Required: No

# InstanceInformationFilter

Describes a filter for a specific list of instances.

## Contents

### **key**

The name of the filter.

Type: String

Valid Values: InstanceIds | AgentVersion | PingStatus | PlatformTypes |  
ActivationIds | IamRole | ResourceType | AssociationStatus

Required: Yes

### **valueSet**

The filter values.

Type: array of Strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1.

Required: Yes

# InstanceInformationStringFilter

The filters to describe or get information about your managed instances.

## Contents

### Key

The filter key name to describe your instances. For example:

```
"InstanceIds"|"AgentVersion"|"PingStatus"|"PlatformTypes"|"ActivationIds"|"IamRole"|"ResourceType"|"AssociationSt  
Key"
```

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### Values

The filter values.

Type: array of Strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1.

Required: Yes

# InventoryFilter

One or more filters. Use a filter to return a more specific list of results.

## Contents

### Key

The name of the filter key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Required: Yes

### Type

The type of filter. Valid values include the following:

"Equal"|"NotEqual"|"BeginWith"|"LessThan"|"GreaterThan"

Type: String

Valid Values: Equal | NotEqual | BeginWith | LessThan | GreaterThan

Required: No

### Values

Inventory filter values. Example: inventory filter where instance IDs are specified as values

Key=AWS:InstanceInformation.InstanceId,Values= i-a12b3c4d5e6g, i-1a2b3c4d5e6,Type=Equal

Type: array of Strings

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

Required: Yes

# InventoryItem

Information collected from managed instances based on your inventory policy document

## Contents

### CaptureTime

The time the inventory information was collected.

Type: String

Pattern: `^(20)[0-9][0-9]-(0[1-9]|1[012])-([12][0-9]|3[01]|0[1-9])(T)(2[0-3]|[0-1][0-9])(:[0-5][0-9])(:[0-5][0-9])(Z)$`

Required: Yes

### Content

The inventory data of the inventory type.

Type: array of String to String maps

Array Members: Minimum number of 0 items. Maximum number of 10000 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

### ContentHash

MD5 hash of the inventory item type contents. The content hash is used to determine whether to update inventory information. The `PutInventory` API does not update the inventory item type contents if the MD5 hash has not changed since last update.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### SchemaVersion

The schema version for the inventory item.

Type: String

Pattern: `^([0-9]{1,6})(\.[0-9]{1,6})$`

Required: Yes

### TypeName

The name of the inventory type. Default inventory item type names start with `AWS`. Custom inventory type names will start with `Custom`. Default inventory item types include the following: `AWS:AWSComponent`, `AWS:Application`, `AWS:InstanceInformation`, `AWS:Network`, and `AWS:WindowsUpdate`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(AWS|Custom):.*$`

Required: Yes

# InventoryItemAttribute

Attributes are the entries within the inventory item content. It contains name and value.

## Contents

### **DataType**

The data type of the inventory item attribute.

Type: String

Valid Values: `string` | `number`

Required: Yes

### **Name**

Name of the inventory item attribute.

Type: String

Required: Yes

# InventoryItemSchema

The inventory item schema definition. Users can use this to compose inventory query filters.

## Contents

### Attributes

The schema attributes for inventory. This contains data type and attribute name.

Type: array of [InventoryItemAttribute](#) (p. 188) objects

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: Yes

### TypeName

The name of the inventory type. Default inventory item type names start with `AWS`. Custom inventory type names will start with `Custom`. Default inventory item types include the following: `AWS:AWSComponent`, `AWS:Application`, `AWS:InstanceInformation`, `AWS:Network`, and `AWS:WindowsUpdate`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(AWS|Custom):.*$`

Required: Yes

### Version

The schema version for the inventory item.

Type: String

Pattern: `^([0-9]{1,6})(\.[0-9]{1,6})$`

Required: No



# InventoryResultEntity

Inventory query results.

## Contents

### Data

The data section in the inventory result entity json.

Type: String to [InventoryResultItem \(p. 191\)](#) object map

Required: No

### Id

ID of the inventory result entity. For example, for managed instance inventory the result will be the managed instance ID. For EC2 instance inventory, the result will be the instance ID.

Type: String

Required: No

# InventoryResultItem

The inventory result item.

## Contents

### CaptureTime

The time inventory item data was captured.

Type: String

Pattern: `^(20)[0-9][0-9]-(0[1-9]|1[012])-([12][0-9]|3[01]|0[1-9])(T)(2[0-3]|0-1)[0-9])(:[0-5][0-9])(:[0-5][0-9])(Z)$`

Required: No

### Content

Contains all the inventory data of the item type. Results include attribute names and values.

Type: array of String to String maps

Array Members: Minimum number of 0 items. Maximum number of 10000 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: Yes

### ContentHash

MD5 hash of the inventory item type contents. The content hash is used to determine whether to update inventory information. The `PutInventory` API does not update the inventory item type contents if the MD5 hash has not changed since last update.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### SchemaVersion

The schema version for the inventory result item/

Type: String

Pattern: `^([0-9]{1,6})(\.[0-9]{1,6})$`

Required: Yes

### TypeName

The name of the inventory result item type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(AWS|Custom):.*$`

Required: Yes

## LoggingInfo

Information about an Amazon S3 bucket to write instance-level logs to.

### Contents

#### **S3BucketName**

The name of an Amazon S3 bucket where execution logs are stored .

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Required: Yes

#### **S3KeyPrefix**

(Optional) The Amazon S3 bucket subfolder.

Type: String

Length Constraints: Maximum length of 500.

Required: No

#### **S3Region**

The region where the Amazon S3 bucket is located.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 20.

Required: Yes

# MaintenanceWindowExecution

Describes the information about an execution of a Maintenance Window.

## Contents

### EndTime

The time the execution finished.

Type: Timestamp

Required: No

### StartTime

The time the execution started.

Type: Timestamp

Required: No

### Status

The status of the execution.

Type: String

Valid Values: PENDING | IN\_PROGRESS | SUCCESS | FAILED | TIMED\_OUT | CANCELLING | CANCELLED | SKIPPED\_OVERLAPPING

Required: No

### StatusDetails

The details explaining the Status. Only available for certain status values.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 250.

Required: No

### WindowExecutionId

The ID of the Maintenance Window execution.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: No

### WindowId

The ID of the Maintenance Window.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: No

# MaintenanceWindowExecutionTaskIdentity

Information about a task execution performed as part of a Maintenance Window execution.

## Contents

### EndTime

The time the task execution finished.

Type: Timestamp

Required: No

### StartTime

The time the task execution started.

Type: Timestamp

Required: No

### Status

The status of the task execution.

Type: String

Valid Values: PENDING | IN\_PROGRESS | SUCCESS | FAILED | TIMED\_OUT | CANCELLING | CANCELLED | SKIPPED\_OVERLAPPING

Required: No

### StatusDetails

The details explaining the status of the task execution. Only available for certain status values.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 250.

Required: No

### TaskArn

The ARN of the executed task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Required: No

### TaskExecutionId

The ID of the specific task execution in the Maintenance Window execution.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: No

### TaskType

The type of executed task.

Type: String

Valid Values: RUN\_COMMAND

Required: No

### WindowExecutionId

The ID of the Maintenance Window execution that ran the task.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: No



# MaintenanceWindowExecutionTaskInvocationIdentity

Describes the information about a task invocation for a particular target as part of a task execution performed as part of a Maintenance Window execution.

## Contents

### EndTime

The time the invocation finished.

Type: Timestamp

Required: No

### ExecutionId

The ID of the action performed in the service that actually handled the task invocation. If the task type is RUN\_COMMAND, this value is the command ID.

Type: String

Required: No

### InvocationId

The ID of the task invocation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: No

### OwnerInformation

User-provided value that was specified when the target was registered with the Maintenance Window. This was also included in any CloudWatch events raised during the task invocation.

Type: String

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

Required: No

### Parameters

The parameters that were provided for the invocation when it was executed.

Type: String

Required: No

### StartTime

The time the invocation started.

Type: Timestamp

Required: No

### Status

The status of the task invocation.

Type: String

Valid Values: PENDING | IN\_PROGRESS | SUCCESS | FAILED | TIMED\_OUT | CANCELLING | CANCELLED | SKIPPED\_OVERLAPPING

Required: No

### StatusDetails

The details explaining the status of the task invocation. Only available for certain Status values.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 250.

Required: No

### TaskExecutionId

The ID of the specific task execution in the Maintenance Window execution.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: No

**WindowExecutionId**

The ID of the Maintenance Window execution that ran the task.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: No

**WindowTargetId**

The ID of the target definition in this Maintenance Window the invocation was performed for.

Type: String

Length Constraints: Maximum length of 36.

Required: No



# MaintenanceWindowFilter

Filter used in the request.

## Contents

### Key

The name of the filter.

Type: String

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

Required: No

### Values

The filter values.

Type: array of Strings

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

# MaintenanceWindowIdentity

Information about the Maintenance Window.

## Contents

### Cutoff

The number of hours before the end of the Maintenance Window that Systems Manager stops scheduling new tasks for execution.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 23.

Required: No

### Duration

The duration of the Maintenance Window in hours.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 24.

Required: No

### Enabled

Whether the Maintenance Window is enabled.

Type: Boolean

Required: No

### Name

The name of the Maintenance Window.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `^[a-zA-Z0-9_\-\.]{3,128}$`

Required: No

### WindowId

The ID of the Maintenance Window.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: No

# MaintenanceWindowTarget

The target registered with the Maintenance Window.

## Contents

### OwnerInformation

User-provided value that will be included in any CloudWatch events raised while running tasks for these targets in this Maintenance Window.

Type: String

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

Required: No

### ResourceType

The type of target.

Type: String

Valid Values: `INSTANCE`

Required: No

### Targets

The targets (either instances or tags). Instances are specified using `Key=instanceids,Values=<instanceid1>,<instanceid2>`. Tags are specified using `Key=<tag name>,Values=<tag value>`.

Type: array of [Target \(p. 215\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

### WindowId

The Maintenance Window ID where the target is registered.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: No

### WindowTargetId

The ID of the target.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: No

# MaintenanceWindowTask

Information about a task defined for a Maintenance Window.

## Contents

### LoggingInfo

Information about an Amazon S3 bucket to write task-level logs to.

Type: [LoggingInfo](#) (p. 192) object

Required: No

### MaxConcurrency

The maximum number of targets this task can be run for in parallel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 7.

Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

Required: No

### MaxErrors

The maximum number of errors allowed before this task stops being scheduled.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 7.

Pattern: `^[1-9]\d*$|[0-9][%]|[1-9][0-9][%]|[1][0][0][%]|[0-9]?`

Required: No

### Priority

The priority of the task in the Maintenance Window, the lower the number the higher the priority. Tasks in a Maintenance Window are scheduled in priority order with tasks that have the same priority scheduled in parallel.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### ServiceRoleArn

The role that should be assumed when executing the task

Type: String

Required: No

### Targets

The targets (either instances or tags). Instances are specified using `Key=instanceids,Values=<instanceid1>,<instanceid2>`. Tags are specified using `Key=<tag name>,Values=<tag value>`.

Type: array of [Target](#) (p. 215) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

### TaskArn

The ARN of the task to execute.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1600.

Required: No

### TaskParameters

The parameters that should be passed to the task when it is executed.

Type: String to [MaintenanceWindowTaskParameterValueExpression](#) (p. 203) object map

Required: No

**Type**

The type of task.

Type: String

Valid Values: RUN\_COMMAND

Required: No

**WindowId**

The Maintenance Window ID where the task is registered.

Type: String

Length Constraints: Fixed length of 20.

Pattern: `^mw-[0-9a-f]{17}$`

Required: No

**WindowTaskId**

The task ID.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}$`

Required: No

# MaintenanceWindowTaskParameterValueExpression

Defines the values for a task parameter.

## Contents

### Values

This field contains an array of 0 or more strings, each 1 to 255 characters in length.

Type: array of Strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

# NotificationConfig

Configurations for sending notifications.

## Contents

### **NotificationArn**

An Amazon Resource Name (ARN) for a Simple Notification Service (SNS) topic. Run Command pushes notifications about command status changes to this topic.

Type: String

Required: No

### **NotificationEvents**

The different events for which you can receive notifications. These events include the following: All (events), InProgress, Success, TimedOut, Cancelled, Failed. To learn more about these events, see [Monitoring Commands](#) in the *Amazon Elastic Compute Cloud User Guide* .

Type: array of Strings

Valid Values: All | InProgress | Success | TimedOut | Cancelled | Failed

Required: No

### **NotificationType**

Command: Receive notification when the status of a command changes. Invocation: For commands sent to multiple instances, receive notification on a per-instance basis when the status of a command changes.

Type: String

Valid Values: Command | Invocation

Required: No

# Parameter

An Amazon EC2 Systems Manager parameter in Parameter Store.

## Contents

### Name

The name of the parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?!^([aA][wW][sS]|[sS][sS][mM]))(?!^[a-zA-Z0-9_.-]*$).*`

Required: No

### Type

The type of parameter. Valid values include the following: String, String list, Secure string.

Type: String

Valid Values: `String | StringList | SecureString`

Required: No

### Value

The parameter value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?:(!\{\{.*\}\})).*`

Required: No



# ParameterHistory

Information about parameter usage.

## Contents

### Description

Information about the parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

### KeyId

The ID of the query key used for this parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9:/_+)$`

Required: No

### LastModifiedDate

Date the parameter was last changed or updated.

Type: Timestamp

Required: No

### LastModifiedUser

Amazon Resource Name (ARN) of the AWS user who last changed the parameter.

Type: String

Required: No

### Name

The name of the parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?!^([aA][wW][sS]|[sS][sS][mM]))(?!^[a-zA-Z0-9_.*$]).*$`

Required: No

### Type

The type of parameter used.

Type: String

Valid Values: `String | StringList | SecureString`

Required: No

### Value

The parameter value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?:(!\\{.*\\})).*`

Required: No

# ParameterMetadata

Metada includes information like the ARN of the last user and the date/time the parameter was last used.

## Contents

### Description

Description of the parameter actions.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

### KeyId

The ID of the query key used for this parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([a-zA-Z0-9:/_-]+)$`

Required: No

### LastModifiedDate

Date the parameter was last changed or updated.

Type: Timestamp

Required: No

### LastModifiedUser

Amazon Resource Name (ARN) of the AWS user who last changed the parameter.

Type: String

Required: No

### Name

The parameter name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?!^([aA][wW][sS]|[sS][sS][mM]))(?!^[a-zA-Z0-9_.-]*$).*`

Required: No

### Type

The type of parameter. Valid parameter types include the following: String, String list, Secure string.

Type: String

Valid Values: `String` | `StringList` | `SecureString`

Required: No

# ParametersFilter

One or more filters. Use a filter to return a more specific list of results.

## Contents

### Key

The name of the filter.

Type: String

Valid Values: `Name` | `Type` | `KeyId`

Required: No

### Values

The filter values.

Type: array of Strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Minimum length of 1. Maximum length of 100.

Required: Yes

# ResultAttribute

The inventory item result attribute.

## Contents

### **TypeName**

Name of the inventory item type. Valid value: "AWS:InstanceInformation". Default Value: "AWS:InstanceInformation".

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(AWS|Custom):.*$`

Required: Yes

# S3OutputLocation

An Amazon S3 bucket where you want to store the results of this request.

## Contents

### **OutputS3BucketName**

The name of the Amazon S3 bucket.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Required: No

### **OutputS3KeyPrefix**

The Amazon S3 bucket subfolder.

Type: String

Length Constraints: Maximum length of 500.

Required: No

### **OutputS3Region**

The Amazon S3 region where the association information is stored.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 20.

Required: No

## S3OutputUrl

A URL for the Amazon S3 bucket where you want to store the results of this request.

### Contents

#### **OutputUrl**

A URL for an Amazon S3 bucket where you want to store the results of this request.

Type: String

Required: No

# StepExecution

Detailed information about an the execution state of an Automation step.

## Contents

### Action

The action this step performs. The action determines the behavior of the step.

Type: String

Pattern: `^aws:[a-zA-Z]{3,25}$`

Required: No

### ExecutionEndTime

If a step has finished execution, this contains the time the execution ended. If the step has not yet concluded, this field is not populated.

Type: Timestamp

Required: No

### ExecutionStartTime

If a step has begun execution, this contains the time the step started. If the step is in `Pending` status, this field is not populated.

Type: Timestamp

Required: No

### FailureMessage

If a step failed, this message explains why the execution failed.

Type: String

Required: No

### Inputs

Fully-resolved values passed into the step before execution.

Type: String to String map

Required: No

### Outputs

Returned values from the execution of the step.

Type: String to array of Strings map

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### Response

A message associated with the response code for an execution.

Type: String

Required: No

### ResponseCode

The response code returned by the execution of the step.

Type: String

Required: No

### StepName

The name of this execution step.

Type: String

Required: No

### StepStatus

The execution status for this step. Valid values include: `Pending`, `InProgress`, `Success`, `Cancelled`, `Failed`, and `TimedOut`.

Type: String

Valid Values: Pending | InProgress | Success | TimedOut | Cancelled | Failed

Required: No



# Tag

Metadata that you assign to your managed instances. Tags enable you to categorize your managed instances in different ways, for example, by purpose, owner, or environment.

## Contents

### Key

The name of the tag.

Type: String

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

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

Required: Yes

### Value

The value of the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

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

Required: Yes

# Target

An array of search criteria that targets instances using a `Key;Value` combination that you specify. `Targets` is required if you don't provide one or more instance IDs in the call.

## Contents

### Key

User-defined criteria for sending commands that target instances that meet the criteria. `Key` can be `tag:<Amazon EC2 tag>` or `name:<Amazon EC2 instance ID>`. For example, `tag:ServerRole` or `name:0123456789012345`. For more information about how to send commands that target instances using `Key;Value` parameters, see [Executing a Command Using Amazon EC2 Run Command \(Linux\)](#) or [Executing a Command Using Amazon EC2 Run Command \(Windows\)](#).

Type: String

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

Pattern: `^[a-zA-Z0-9_.:/=-@]*$`

Required: No

### Values

User-defined criteria that maps to `Key`. For example, if you specified `tag:ServerRole`, you could specify `value:WebServer` to execute a command on instances that include Amazon EC2 tags of `ServerRole;WebServer`. For more information about how to send commands that target instances using `Key;Value` parameters, see [Executing a Command Using Amazon EC2 Run Command \(Linux\)](#) or [Executing a Command Using Amazon EC2 Run Command \(Windows\)](#).

Type: array of Strings

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

# SSM Plugins

---

Amazon EC2 Simple Systems Manager (SSM) Config and SSM Run Command use the following plugins. Platform dependencies are noted for each plugin.

## Contents

- [Top-level Elements](#) (p. 216)
- [aws:runPowerShellScript](#) (p. 217)
- [aws:updateAgent](#) (p. 218)
- [aws:applications](#) (p. 218)
- [aws:cloudWatch](#) (p. 219)
- [aws:domainJoin](#) (p. 226)
- [aws:psModule](#) (p. 227)
- [aws:runShellScript](#) (p. 228)
- [aws:updateSSMAgent](#) (p. 229)

## Top-level Elements

Defines the structure of an SSM document.

### Syntax

```
{
  "schemaVersion": "version",
  "description": "description",
  "runtimeConfig": {
    "aws:applications": {...},
    "aws:cloudWatch": {...},
    "aws:domainJoin": {...},
    "aws:psModule": {...},
    "aws:updateagent": {...},
    "aws:runpowershellscript": {...},
    "aws:updatessmagent": {...},
    "aws:runshellscript": {...}
  }
}
```

```
}
```

## Properties

### schemaVersion

The version of the schema.

Type: Version

Required: Yes

### description

A description of the configuration.

Type: String

Required: No

### runtimeConfig

The configuration for the instance. For more information, see:

- [aws:applications](#) (p. 218)
- [aws:cloudWatch](#) (p. 219)
- [aws:domainJoin](#) (p. 226)
- [aws:psModule](#) (p. 227)
- [aws:updateAgent](#) (p. 218)
- [aws:runPowerShellScript](#) (p. 217)

Type: Dictionary<string,PluginConfiguration>

Required: No

## aws:runPowerShellScript

Run PowerShell scripts or specify the path to a script to run. This plugin only runs on Microsoft Windows operating systems.

## Syntax

```
"aws:runPowerShellScript": {  
  "properties": [  
    {  
      "runCommand": "command",  
      "workingDirectory": "workingDirectory",  
      "timeoutSeconds": "timeout",  
    },  
    {  
      "runCommand": [  
        "command1",  
        "command2",  
        "command3"  
      ],  
      "workingDirectory": "workingDirectory",  
      "timeoutSeconds": "timeout",  
    },  
    ...  
  ]  
}
```

## Properties

### **command**

Specify the command(s) to run or the path to an existing script on the instance.

Type: String or Array

Required: Yes

### **workingDirectory**

The path to the working directory on your instance.

Type: String

Required: No

### **timeout**

The time in seconds for a command to be completed before it is considered to have failed.

Type: String

Required: No

## aws:updateAgent

Update the EC2Config service to the latest version or specify an older version. This plugin only runs on Microsoft Windows operating systems.

## Syntax

```
"aws:updateAgent": {  
  "properties": [  
    {  
      "allowDowngrade": "true/false",  
      "targetVersion": "version"  
    }  
  ]  
}
```

## Properties

### **allowDowngrade**

Allow the EC2Config service to be downgraded to an earlier version. If set to false, the service can be upgraded to newer versions only (default). If set to true, specify the earlier version.

Type: Boolean

Required: No

### **Version**

A specific version of the EC2Config service to install. If not specified, the service will be updated to the latest version.

Type: String

Required: No

## aws:applications

Install, repair, or uninstall applications on an EC2 instance. This plugin only runs on Microsoft Windows operating systems.

## Syntax

```
"aws:applications": {  
  "properties": [  
    {  
      "action": "action",  
      "source": "url",  
      "sourceHash": "hash"  
    },  
    {  
      "action": "action",  
      "source": "url",  
      "parameters": "string"  
    },  
    ...  
  ]  
}
```

## Properties

### action

The action to take.

Type: Enum

Valid values: Install | Repair | Uninstall

Required: Yes

### parameters

The parameters for the installer.

Type: String

Required: No

### source

The URL of the .msi file for the application.

Type: String

Required: Yes

### sourceHash

The SHA256 hash of the .msi file.

Type: String

Required: No

## Examples

For examples, see [Managing Windows Instance Configuration](#) in the *Amazon EC2 User Guide for Windows Instances*.

## aws:cloudWatch

Export data from Windows server to Amazon CloudWatch or Amazon CloudWatch Logs and monitor using Amazon CloudWatch metrics. This plugin only runs on Microsoft Windows operating systems.

You can export and monitor the following data types:

**ApplicationEventLog**

Sends application event log data to CloudWatch Logs.

**CustomLogs**

Sends any text-based log file to CloudWatch Logs.

**ETW**

Sends Event Tracing for Windows (ETW) data to CloudWatch Logs.

**Note**

Microsoft Windows Server 2003 is not supported.

**IIS**

Sends IIS log data to CloudWatch Logs.

**PerformanceCounter**

Sends Windows performance counters to CloudWatch. You can select different categories to upload to CloudWatch as metrics. For each performance counter that you want to upload, create a **PerformanceCounter** section with a unique ID (for example, "PerformanceCounter2", "PerformanceCounter3", and so on) and configure its properties.

**SecurityEventLog**

Sends security event log data to CloudWatch Logs.

**SystemEventLog**

Sends system event log data to CloudWatch Logs.

You can define the following destinations for the data:

**CloudWatch**

The destination where your performance counter metric data is sent. You can add additional sections with unique IDs (for example, "CloudWatch2", "CloudWatch3", and so on), and specify a different region for each new ID to send the same data to different locations.

**CloudWatchLogs**

The destination where your log data is sent. You can add additional sections with unique IDs (for example, "CloudWatchLogs2", "CloudWatchLogs3", and so on), and specify a different region for each new ID to send the same data to different locations.

## Syntax

```
"aws:cloudWatch": {
  "properties": {
    "EngineConfiguration": {
      "PollInterval": "00:00:15",
      "Components": [
        {
          "Id": "ApplicationEventLog",
          "FullName":
"AWS.EC2.Windows.CloudWatch.EventLog.EventLogInputComponent,AWS.EC2.Windows.CloudWatch",
          "Parameters": {
            "LogName": "Application",
            "Levels": "value"
          }
        },
        {
          "Id": "CloudWatch",
          "FullName":
"AWS.EC2.Windows.CloudWatch.CloudWatch.CloudWatchOutputComponent,AWS.EC2.Windows.CloudWatch",
          "Parameters": {
            "AccessKey": "access-key-id",
            "SecretKey": "secret-access-key",
```

```
        "Region": "region",
        "NameSpace": "namespace"
    },
    {
        "Id": "CloudWatchLogs",
        "FullName":
"AWS.EC2.Windows.CloudWatch.CloudWatchLogsOutput,AWS.EC2.Windows.CloudWatch",
        "Parameters": {
            "AccessKey": "access-key-id",
            "SecretKey": "secret-access-key",
            "Region": "region",
            "LogGroup": "group",
            "LogStream": "stream"
        }
    },
    {
        "Id": "CustomLogs",
        "FullName":
"AWS.EC2.Windows.CloudWatch.CustomLog.CustomLogInputComponent,AWS.EC2.Windows.CloudWatch",
        "Parameters": {
            "LogDirectoryPath": "path",
            "TimestampFormat": "value",
            "Encoding": "value",
            "Filter": "",
            "CultureName": "locale",
            "TimeZoneKind": "value",
            "LineCount": "value"
        }
    },
    {
        "Id": "ETW",
        "FullName":
"AWS.EC2.Windows.CloudWatch.EventLog.EventLogInputComponent,AWS.EC2.Windows.CloudWatch",
        "Parameters": {
            "LogName": "Microsoft-Windows-WinINet/Analytic",
            "Levels": "value"
        }
    },
    {
        "Id": "IISLogs",
        "FullName":
"AWS.EC2.Windows.CloudWatch.CustomLog.CustomLogInputComponent,AWS.EC2.Windows.CloudWatch",
        "Parameters": {
            "LogDirectoryPath": "path",
            "TimestampFormat": "value",
            "Encoding": "value",
            "Filter": "",
            "CultureName": "locale",
            "TimeZoneKind": "value",
            "LineCount": "value"
        }
    },
    {
        "Id": "PerformanceCounter",
        "FullName":
"AWS.EC2.Windows.CloudWatch.PerformanceCounterComponent.PerformanceCounterInputComponent,AWS.EC2.Windows.CloudWatch",
        "Parameters": {
            "CategoryName": "name",
```



```
        "CounterName": "name",
        "InstanceName": "name",
        "MetricName": "name",
        "Unit": "unit",
        "DimensionName": "name",
        "DimensionValue": "value"
    },
    {
        "Id": "SecurityEventLog",
        "FullName":
"AWS.EC2.Windows.CloudWatch.EventLog.EventLogInputComponent,AWS.EC2.Windows.CloudWatch",
        "Parameters": {
            "LogName": "Security",
            "Levels": "value"
        }
    },
    {
        "Id": "SystemEventLog",
        "FullName":
"AWS.EC2.Windows.CloudWatch.EventLog.EventLogInputComponent,AWS.EC2.Windows.CloudWatch",
        "Parameters": {
            "LogName": "System",
            "Levels": "value"
        }
    }
],
"Flows": {
    "Flows": [
        "source,destination",
        "(source1, source2),destination",
        "source, (destination1,destination2)"
    ]
}
}
```

## Properties

### AccessKey

Your access key ID. This property is required unless you launched your instance using an IAM role. This property cannot be used with SSM.

Type: String

Required: No

### CategoryName

The performance counter category from Performance Monitor.

Type: String

Required: Yes

### CounterName

The name of the performance counter from Performance Monitor.

Type: String

Required: Yes

**CultureName**

The locale where the timestamp is logged. If **CultureName** is blank, it defaults to the same locale currently used by your Windows instance.

Type: String

Valid values: For a list of supported values, see [National Language Support \(NLS\)](#) on the Microsoft website. Note that the **div**, **div-MV**, **hu**, and **hu-HU** values are not supported.

Required: No

**DimensionName**

A dimension for your Amazon CloudWatch metric. If you specify `DimensionName`, you must specify `DimensionValue`. These parameters provide another view when listing metrics. You can also use the same dimension for multiple metrics so that you can view all metrics belonging to a specific dimension.

Type: String

Required: No

**DimensionValue**

A dimension value for your Amazon CloudWatch metric.

Type: String

Required: No

**Encoding**

The file encoding to use (for example, UTF-8). Use the encoding name, not the display name.

Type: String

Valid values: For a list of supported values, see [Encoding Class](#) in the MSDN Library.

Required: Yes

**Filter**

The prefix of log names. Leave this parameter blank to monitor all files.

Type: String

Valid values: For a list of supported values, see the [FileSystemWatcherFilter Property](#) in the MSDN Library.

Required: No

**Flows**

Each data type to upload, along with the destination for the data (CloudWatch or CloudWatch Logs). For example, to send a performance counter defined under "Id": "PerformanceCounter" to the CloudWatch destination defined under "Id": "CloudWatch", enter "**PerformanceCounter,CloudWatch**". Similarly, to send the custom log, ETW log, and system log to the CloudWatch Logs destination defined under "Id": "ETW", enter "**(ETW),CloudWatchLogs**". In addition, you can send the same performance counter or log file to more than one destination. For example, to send the application log to two different destinations that you defined under "Id": "CloudWatchLogs" and "Id": "CloudWatchLogs2", enter "**ApplicationEventLog,(CloudWatchLogs, CloudWatchLogs2)**".

Type: String

Valid values (source): ApplicationEventLog | CustomLogs | ETW | PerformanceCounter | SystemEventLog | SecurityEventLog

Valid values (destination): CloudWatch | CloudWatchLogs | CloudWatch $n$  | CloudWatchLogs $n$

Required: Yes

**FullName**

The full name of the component.

Type: String

Required: Yes

**Id**

Identifies the data source or destination. This identifier must be unique within the configuration file.

Type: String

Required: Yes

**InstanceName**

The name of the performance counter instance. Do not use an asterisk (\*) to indicate all instances because each performance counter component only supports one metric. You can, however use **\_Total**.

Type: String

Required: Yes

**Levels**

The types of messages to send to Amazon CloudWatch.

Type: String

Valid values:

- **1** - Only error messages uploaded.
- **2** - Only warning messages uploaded.
- **4** - Only information messages uploaded.

Note that you can add values together to include more than one type of message. For example, **3** means that error messages (**1**) and warning messages (**2**) are included. A value of **7** means that error messages (**1**), warning messages (**2**), and informational messages (**4**) are included.

Required: Yes

**Note**

Windows Security Logs should set Levels to 7.

**LineCount**

The number of lines in the header to identify the log file. For example, IIS log files have virtually identical headers. You could enter **3**, which would read the first three lines of the log file's header to identify it. In IIS log files, the third line is the date and time stamp, which is different between log files.

Type: Integer

Required: No

**LogDirectoryPath**

For CustomLogs, the path where logs are stored on your Amazon EC2 instance. For IIS logs, the folder where IIS logs are stored for an individual site (for example, **C:\inetpub\logs\LogFiles\W3SVC<sub>n</sub>**).

**Note**

For IIS logs, only W3C log format is supported. IIS, NCSA, and Custom formats are not supported.

Type: String

Required: Yes

**LogGroup**

The name for your log group. This name is displayed on the **Log Groups** screen in the CloudWatch console.

Type: String

Required: Yes

**LogName**

The name of the log file.

1. To find the name of the log, in Event Viewer, in the navigation pane, click **Applications and Services Logs**.
2. In the list of logs, right-click the log you want to upload (for example, Microsoft>Windows>Backup>Operational), and then click **Create Custom View**.
3. In the **Create Custom View** dialog box, click the **XML** tab. The **LogName** is in the <Select Path=> tag (for example, Microsoft-Windows-Backup). Copy this text into the **LogName** parameter.

Type: String

Valid values: Application | Security | System | Microsoft-Windows-WinINet/Analytic

Required: Yes

**LogStream**

The destination log stream. If you use **{instance\_id}**, the default, the instance ID of this instance is used as the log stream name.

Type: String

Valid values: {instance\_id} | {hostname} | {ip\_address} <log\_stream\_name>

If you enter a log stream name that doesn't already exist, CloudWatch Logs automatically creates it for you. You can use a literal string or predefined variables (**{instance\_id}**, **{hostname}**, **{ip\_address}**), or a combination of all three to define a log stream name.

The log stream name specified in this parameter appears on the **Log Groups > Streams for <YourLogStream>** screen in the CloudWatch console.

Required: Yes

**MetricName**

The CloudWatch metric that you want performance data to appear under.

Type: String

Required: Yes

**Namespace**

The metric namespace where you want performance counter data to be written.

Type: String

Required: Yes

**PollInterval**

How many seconds must elapse before new performance counter and log data is uploaded.

Type: Integer

Valid values: Set this to 5 or more seconds. Fifteen seconds (00:00:15) is recommended.

Required: Yes

**Region**

The region where you want to send log data. Although you can send performance counters to a different region from where you send your log data, we recommend that you set this parameter to the same region where your instance is running.

Type: String

Valid values: `us-east-1` | `us-west-2` | `eu-west-1` | `eu-central-1` | `ap-southeast-1` | `ap-southeast-2` | `ap-northeast-1`

Required: Yes

**SecretKey**

Your secret access key. This property is required unless you launched your instance using an IAM role.

Type: String

Required: No

**TimestampFormat**

The timestamp format you want to use. For a list of supported values, see [Custom Date and Time Format Strings](#) in the MSDN Library.

Type: String

Required: Yes

**TimeZoneKind**

Provides time zone information when no time zone information is included in your log's timestamp. If this parameter is left blank and if your timestamp doesn't include time zone information, CloudWatch Logs defaults to the local time zone. This parameter is ignored if your timestamp already contains time zone information.

Type: String

Valid values: `Local` | `UTC`

Required: No

**Unit**

The appropriate unit of measure for the metric.

Type: String

Valid values: `Seconds` | `Microseconds` | `Milliseconds` | `Bytes` | `Kilobytes` | `Megabytes` | `Gigabytes` | `Terabytes` | `Bits` | `Kilobits` | `Megabits` | `Gigabits` | `Terabits` | `Percent` | `Count` | `Bytes/Second` | `Kilobytes/Second` | `Megabytes/Second` | `Gigabytes/Second` | `Terabytes/Second` | `Bits/Second` | `Kilobits/Second` | `Megabits/Second` | `Gigabits/Second` | `Terabits/Second` | `Count/Second` | `None`

Required: Yes

## Examples

For examples, see [Sending Performance Counters to CloudWatch and Logs to CloudWatch Logs](#) in the *Amazon EC2 User Guide for Windows Instances*.

## aws:domainJoin

Join an EC2 instance to a domain. This plugin only runs on Microsoft Windows operating systems.

## Syntax

```
"aws:domainJoin": {  
  "properties": {  
    "directoryId": "id",  
    "directoryName": "name",  
    "directoryOU":  
    "OU=organizationalUnit,DC=domainComponent,DC=domainComponent,DC=domainComponent",  
    "dnsIpAddresses": [ "ip1", "ip2", ... ]  
  }  
}
```

## Properties

### directoryId

The ID of the directory.

Type: String

Required: No

Example: "directoryId": "d-1234567890"

### directoryName

The name of the domain.

Type: String

Required: Yes

Example: "directoryName": "example.com"

### directoryOU

The organizational unit (OU).

Type: String

Required: Yes

Example: "directoryOU": "OU=test,DC=example,DC=com"

### dnsIpAddresses

The IP addresses of the DNS servers.

Type: Array

Required: No

Example: "dnsIpAddresses": ["198.51.100.1", "198.51.100.2"]

## Examples

For examples, see [Seamlessly Joining a Windows Instance to an AWS Directory Service Domain](#) in the *Amazon EC2 User Guide for Windows Instances*.

## aws:psModule

Install PowerShell modules on an EC2 instance. This plugin only runs on Microsoft Windows operating systems.

## Syntax

```
"aws:psModule": {
```

```
"properties": [  
  {  
    "runCommand": "command",  
    "source": "url",  
    "sourceHash": "hash"  
  },  
  {  
    "runCommand": [  
      "command1",  
      "command2",  
      "command3"  
    ],  
    "sourceHash": "hash"  
  },  
  ...  
]
```

## Properties

### runCommand

The PowerShell command to run after the module is installed.

Type: String or Array

Required: No

### source

The URL of the .zip file for the PowerShell module.

Type: String

Required: No

### sourceHash

The SHA256 hash of the .zip file.

Type: String

Required: No

## Examples

For examples, see [Managing Windows Instance Configuration](#) in the *Amazon EC2 User Guide for Windows Instances*.

## aws:runShellScript

Run Linux shell scripts or specify the path to a script to run. This plugin only runs on Linux operating systems.

## Syntax

```
"aws:runShellScript": {  
  "properties": [  
    {  
      "runCommand": "command",  
      "workingDirectory": "workingDirectory",  
      "timeoutSeconds": "timeout",  
    }  
  ]  
}
```

```
    },  
    {  
      "runCommand": [  
        "command1",  
        "command2",  
        "command3"  
      ],  
      "workingDirectory": "workingDirectory",  
      "timeoutSeconds": "timeout",  
    },  
    ...  
  ]  
}
```

## Properties

### **command**

Specify the command(s) to run or the path to an existing script on the instance.

Type: String or Array

Required: Yes

### **workingDirectory**

The path to the working directory on your instance.

Type: String

Required: No

### **timeout**

The time in seconds for a command to be completed before it is considered to have failed.

Type: String

Required: No

## aws:updateSSMAgent

Update the Amazon SSM agent to the latest version or specify an older version. This plugin only runs on Linux operating systems.

## Syntax

```
"aws:updateSSMAgent": {  
  "properties": [  
    {  
      "allowDowngrade": "true/false",  
      "targetVersion": "version"  
    }  
  ]  
}
```

## Properties

### **allowDowngrade**

Allow the Amazon SSM agent to be downgraded to an earlier version. If set to false, the agent can be upgraded to newer versions only (default). If set to true, specify the earlier version.



Type: Boolean

Required: No

**Version**

A specific version of the Amazon SSM agent to install. If not specified, the agent will be updated to the latest version.

Type: String

Required: No

# Common Parameters

---

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

**Action**

The action to be performed.

Type: string

Required: Yes

**Version**

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

Type: string

Required: Yes

**X-Amz-Algorithm**

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

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

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

**X-Amz-Credential**

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4\_request"). The value is expressed in the following format: `access_key/YYYYMMDD/region/service/aws4_request`.

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

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

Type: string

Required: Conditional

**X-Amz-Date**

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

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

Type: string

Required: Conditional

**X-Amz-Security-Token**

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

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

Type: string

Required: Conditional

**X-Amz-Signature**

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

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

Type: string

Required: Conditional

**X-Amz-SignedHeaders**

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

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

Type: string

Required: Conditional

# Common Errors

---

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

**IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

**InternalFailure**

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

HTTP Status Code: 500

**InvalidAction**

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

HTTP Status Code: 400

**InvalidClientTokenId**

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

HTTP Status Code: 403

**InvalidParameterCombination**

Parameters that must not be used together were used together.

HTTP Status Code: 400

**InvalidParameterValue**

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

HTTP Status Code: 400

**InvalidQueryParameter**

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

HTTP Status Code: 400

**MalformedQueryString**

The query string contains a syntax error.

HTTP Status Code: 404

**MissingAction**

The request is missing an action or a required parameter.

HTTP Status Code: 400

**MissingAuthenticationToken**

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

HTTP Status Code: 403

**MissingParameter**

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

**OptInRequired**

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

HTTP Status Code: 403

**RequestExpired**

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

HTTP Status Code: 400

**ServiceUnavailable**

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

HTTP Status Code: 503

**Throttling**

The request was denied due to request throttling.

HTTP Status Code: 400

**ValidationError**

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

HTTP Status Code: 400

# Auditing SSM API Calls Using AWS CloudTrail

---

Run Command is an extension of AWS EC2 Simple Systems Manager (SSM). Where this document talks about SSM, it includes Run Command.

SSM is integrated with CloudTrail, a service that captures API calls made by or on behalf of SSM and delivers the log files to an Amazon S3 bucket that you specify. The API calls can be made indirectly by using the Amazon EC2 console, AWS CLI, or AWS Tools for Windows PowerShell, or directly by using the SSM API. Using the information collected by CloudTrail, you can determine what request was made, the source IP address from which the request was made, who made the request, when it was made, and so on. CloudTrail logs all SSM API actions. These actions are documented in the [Amazon EC2 Simple Systems Manager API Reference](#). For example, calls to execute commands with Run Command or create SSM documents generate entries in CloudTrail log files. To learn more about CloudTrail, including how to configure and enable it, see the [AWS CloudTrail User Guide](#).

## SSM Information in CloudTrail

When CloudTrail logging is enabled, calls made to SSM actions are tracked in log files, along with any other AWS service records. CloudTrail determines when to create and write to a new file based on a specified time period and file size.

Every log entry contains information about who generated the request. The user identity information in the log helps you determine whether the request was made with root or IAM user credentials, with temporary security credentials for a role or federated user, or by another AWS service. For more information, see the **userIdentity** field in the [CloudTrail Event Reference](#).

You can store your log files in your bucket for as long as you want, but you can also define Amazon S3 lifecycle rules to archive or delete log files automatically. By default, your log files are encrypted by using Amazon S3 server-side encryption (SSE).

You can choose to have CloudTrail publish Amazon SNS notifications when new log files are delivered if you want to take quick action upon log file delivery. For more information, see [Configuring Amazon SNS Notifications](#).

You can also aggregate SSM log files from multiple AWS regions and multiple AWS accounts into a single Amazon S3 bucket. For more information, see [Aggregating CloudTrail Log Files to a Single Amazon S3 Bucket](#).

## Understanding SSM Log File Entries

CloudTrail log files can contain one or more log entries where each entry is made up of multiple JSON-formatted events. A log entry represents a single request from any source and includes information about the requested action, any input parameters, the date and time of the action, and so on. The log entries are not in any particular order. That is, they are not an ordered stack trace of the public API calls.