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Welcome to the Amazon WorkSpaces API Reference

This is the Amazon WorkSpaces API Reference. This guide provides detailed information about the Amazon WorkSpaces API.
Actions

The following actions are supported:

- CreateTags (p. 3)
- CreateWorkspaces (p. 5)
- DeleteTags (p. 8)
- DescribeTags (p. 10)
- DescribeWorkspaceBundles (p. 12)
- DescribeWorkspaceDirectories (p. 15)
- DescribeWorkspaces (p. 18)
- DescribeWorkspacesConnectionStatus (p. 22)
- ModifyWorkspaceProperties (p. 24)
- RebootWorkspaces (p. 26)
- RebuildWorkspaces (p. 28)
- StartWorkspaces (p. 30)
- StopWorkspaces (p. 32)
- TerminateWorkspaces (p. 34)
CreateTags

Creates tags for a WorkSpace.

Request Syntax

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

Request Parameters

The request accepts the following data in JSON format.

ResourceId (p. 3)

The resource ID of the request.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

Tags (p. 3)

The tags of the request.

Type: Array of Tag (p. 45) 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. 60).

InvalidParameterValueException

One or more parameter values are not valid.

HTTP Status Code: 400

ResourceLimitExceededException

Your resource limits have been exceeded.

HTTP Status Code: 400
ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

See Also

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

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

Creates one or more WorkSpaces.

**Note**
This operation is asynchronous and returns before the WorkSpaces are created.

**Request Syntax**

```json
{
    "Workspaces": [
        {
            "BundleId": "string",
            "DirectoryId": "string",
            "RootVolumeEncryptionEnabled": boolean,
            "Tags": [
                {
                    "Key": "string",
                    "Value": "string"
                }
            ],
            "UserName": "string",
            "UserVolumeEncryptionEnabled": boolean,
            "VolumeEncryptionKey": "string",
            "WorkspaceProperties": {
                "RunningMode": "string",
                "RunningModeAutoStopTimeoutInMinutes": number
            }
        }
    ]
}
```

**Request Parameters**

The request accepts the following data in JSON format.

**Workspaces (p. 5)**
An array of structures that specify the WorkSpaces to create.

Type: Array of [WorkspaceRequest (p. 58)] objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

**Response Syntax**

```json
{
    "FailedRequests": [
        {
            "ErrorCode": "string",
            "ErrorMessage": "string",
            "WorkspaceRequest": {
                "BundleId": "string",
                "DirectoryId": "string",
                "RootVolumeEncryptionEnabled": boolean,
                "Tags": [
                    {
                        "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.

FailedRequests (p. 5)

An array of structures that represent the WorkSpaces that could not be created.

Type: Array of FailedCreateWorkspaceRequest (p. 39) objects

PendingRequests (p. 5)

An array of structures that represent the WorkSpaces that were created.

Because this operation is asynchronous, the identifier in WorkspaceId is not immediately available. If you immediately call DescribeWorkspaces (p. 18) with this identifier, no information will be returned.

Type: Array of Workspace (p. 48) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).
InvalidParameterValuesException

One or more parameter values are not valid.

HTTP Status Code: 400

ResourceLimitExceededException

Your resource limits have been exceeded.

HTTP Status Code: 400

See Also

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

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

Deletes tags from a WorkSpace.

Request Syntax

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

Request Parameters

The request accepts the following data in JSON format.

ResourceId (p. 8)

The resource ID of the request.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

TagKeys (p. 8)

The tag keys of the request.

Type: Array of strings

Length Constraints: Minimum length of 1.

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. 60).

InvalidParameterValueException

One or more parameter values are not valid.

HTTP Status Code: 400

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400
See Also

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

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

Describes tags for a WorkSpace.

Request Syntax

```
{
    "ResourceId": "string"
}
```

Request Parameters

The request accepts the following data in JSON format.

ResourceId (p. 10)

The resource ID of the request.

Type: String

Length Constraints: Minimum length of 1.

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. 10)

The list of tags.

Type: Array of Tag (p. 45) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

ResourceNotFoundException

The resource could not be found.
HTTP Status Code: 400

See Also

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

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

Obtains information about the WorkSpace bundles that are available to your account in the specified region.

You can filter the results with either the BundleIds parameter, or the Owner parameter, but not both.

This operation supports pagination with the use of the NextToken request and response parameters. If more results are available, the NextToken response member contains a token that you pass in the next call to this operation to retrieve the next set of items.

Request Syntax

```json
{
   "BundleIds": [ "string" ],
   "NextToken": "string",
   "Owner": "string"
}
```

Request Parameters

The request accepts the following data in JSON format.

**BundleIds (p. 12)**

An array of strings that contains the identifiers of the bundles to retrieve. This parameter cannot be combined with any other filter parameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Pattern: ^wsb-[0-9a-z]{8,63}#

Required: No

**NextToken (p. 12)**

The NextToken value from a previous call to this operation. Pass null if this is the first call.

Type: String


Required: No

**Owner (p. 12)**

The owner of the bundles to retrieve. This parameter cannot be combined with any other filter parameter.

This contains one of the following values:

- null- Retrieves the bundles that belong to the account making the call.
- AMAZON- Retrieves the bundles that are provided by AWS.

Type: String

Required: No
Response Syntax

```json
{
  "Bundles": [
    {
      "BundleId": "string",
      "ComputeType": {
        "Name": "string"
      },
      "Description": "string",
      "Name": "string",
      "Owner": "string",
      "UserStorage": {
        "Capacity": "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.

**Bundles (p. 13)**

An array of structures that contain information about the bundles.

Type: Array of **WorkspaceBundle (p. 51)** objects

**NextToken (p. 13)**

If not null, more results are available. Pass this value for the NextToken parameter in a subsequent call to this operation to retrieve the next set of items. This token is valid for one day and must be used within that time frame.

Type: String


Errors

For information about the errors that are common to all actions, see **Common Errors (p. 60)**.

**InvalidParameterValueException**

One or more parameter values are not valid.

HTTP Status Code: 400

See Also

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

- **AWS Command Line Interface**
See Also

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

Retrieves information about the AWS Directory Service directories in the region that are registered with Amazon WorkSpaces and are available to your account.

This operation supports pagination with the use of the NextToken request and response parameters. If more results are available, the NextToken response member contains a token that you pass in the next call to this operation to retrieve the next set of items.

Request Syntax

```json
{
  "DirectoryIds": [ "string" ],
  "NextToken": "string"
}
```

Request Parameters

The request accepts the following data in JSON format.

DirectoryIds (p. 15)

An array of strings that contains the directory identifiers to retrieve information for. If this member is null, all directories are retrieved.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Pattern: ^d-[0-9a-f]{8,63}$

Required: No

NextToken (p. 15)

The NextToken value from a previous call to this operation. Pass null if this is the first call.

Type: String


Required: No

Response Syntax

```json
{
  "Directories": [
  {
    "Alias": "string",
    "CustomerUserName": "string",
    "DirectoryId": "string",
    "DirectoryName": "string",
    "DirectoryType": "string",
    "DnsIpAddresses": [ "string" ],
    "IamRoleId": "string",
    "RegistrationCode": "string",
    "State": "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.

Directories (p. 15)

An array of structures that contain information about the directories.

Type: Array of WorkspaceDirectory (p. 54) objects

NextToken (p. 15)

If not null, more results are available. Pass this value for the NextToken parameter in a subsequent call to this operation to retrieve the next set of items. This token is valid for one day and must be used within that time frame.

Type: String


Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

InvalidParameterValueException

One or more parameter values are not valid.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript

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• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
DescribeWorkspaces

Obtains information about the specified WorkSpaces.

Only one of the filter parameters, such as BundleId, DirectoryId, or WorkspaceIds, can be specified at a time.

This operation supports pagination with the use of the NextToken request and response parameters. If more results are available, the NextToken response member contains a token that you pass in the next call to this operation to retrieve the next set of items.

Request Syntax

```
{
    "BundleId": "string",
    "DirectoryId": "string",
    "Limit": number,
    "NextToken": "string",
    "UserName": "string",
    "WorkspaceIds": [ "string" ]
}
```

Request Parameters

The request accepts the following data in JSON format.

**BundleId (p. 18)**

The identifier of a bundle to obtain the WorkSpaces for. All WorkSpaces that are created from this bundle will be retrieved. This parameter cannot be combined with any other filter parameter.

Type: String

Pattern: ^wsb-[0-9a-z]{8,63}$

Required: No

**DirectoryId (p. 18)**

Specifies the directory identifier to which to limit the WorkSpaces. Optionally, you can specify a specific directory user with the UserName parameter. This parameter cannot be combined with any other filter parameter.

Type: String

Pattern: ^d-[0-9a-f]{8,63}$

Required: No

**Limit (p. 18)**

The maximum number of items to return.

Type: Integer


Required: No
**NextToken (p. 18)**

The `NextToken` value from a previous call to this operation. Pass null if this is the first call.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 63.

**Required:** No

**UserName (p. 18)**

Used with the `DirectoryId` parameter to specify the directory user for whom to obtain the WorkSpace.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 63.

**Required:** No

**WorkspaceIds (p. 18)**

An array of strings that contain the identifiers of the WorkSpaces for which to retrieve information. This parameter cannot be combined with any other filter parameter.

Because the `CreateWorkspaces` operation is asynchronous, the identifier it returns is not immediately available. If you immediately call `DescribeWorkspaces` with this identifier, no information is returned.

**Type:** Array of strings

**Array Members:** Minimum number of 1 item. Maximum number of 25 items.

**Pattern:** ^ws-[0-9a-z]{8,63}$

**Required:** No

---

**Response Syntax**

```json
{
  "NextToken": "string",
  "Workspaces": [
    {
      "BundleId": "string",
      "ComputerName": "string",
      "DirectoryId": "string",
      "ErrorCode": "string",
      "ErrorMessage": "string",
      "IpAddress": "string",
      "RootVolumeEncryptionEnabled": boolean,
      "State": "string",
      "SubnetId": "string",
      "UserName": "string",
      "UserVolumeEncryptionEnabled": boolean,
      "VolumeEncryptionKey": "string",
      "WorkspaceId": "string",
      "WorkspaceProperties": {
        "RunningMode": "string",
        "RunningModeAutoStopTimeoutInMinutes": number
      }
    }
  ]
}
```

---

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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. 19)**

If not null, more results are available. Pass this value for the `NextToken` parameter in a subsequent call to this operation to retrieve the next set of items. This token is valid for one day and must be used within that time frame.

Type: String


**Workspaces (p. 19)**

An array of structures that contain the information about the WorkSpaces.

Because the `CreateWorkspaces (p. 5)` operation is asynchronous, some of this information may be incomplete for a newly-created WorkSpace.

Type: Array of `Workspace (p. 48)` objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

**InvalidParameterValueException**

One or more parameter values are not valid.

HTTP Status Code: 400

**ResourceUnavailableException**

The specified resource is not available.

HTTP Status Code: 400

See Also

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

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

Describes the connection status of a specified WorkSpace.

Request Syntax

```json
{
   "NextToken": "string",
   "WorkspaceIds": [ "string"
}
```

Request Parameters

The request accepts the following data in JSON format.

NextToken (p. 22)

The next token of the request.

Type: String


Required: No

WorkspaceIds (p. 22)

An array of strings that contain the identifiers of the WorkSpaces.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Pattern: ^ws-[0-9a-z]{8,63}$

Required: No

Response Syntax

```json
{
   "NextToken": "string",
   "WorkspacesConnectionStatus": [ {
       "ConnectionState": "string",
       "ConnectionStateCheckTimestamp": number,
       "LastKnownUserConnectionTimestamp": number,
       "WorkspaceId": "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.

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22
NextToken (p. 22)

The next token of the result.

Type: String


WorkspacesConnectionStatus (p. 22)

The connection status of the WorkSpace.

Type: Array of WorkspacesConnectionStatus (p. 53) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

InvalidParameterValuesException

One or more parameter values are not valid.

HTTP Status Code: 400

See Also

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

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

Modifies the WorkSpace properties, including the running mode and AutoStop time.

**Request Syntax**

```json
{
    "WorkspaceId": "string",
    "WorkspaceProperties": {
        "RunningMode": "string",
        "RunningModeAutoStopTimeoutInMinutes": number
    }
}
```

**Request Parameters**

The request accepts the following data in JSON format.

**WorkspaceId (p. 24)**

The ID of the WorkSpace.

Type: String

Pattern: ^ws-[0-9a-z]{8,63}$

Required: Yes

**WorkspaceProperties (p. 24)**

The WorkSpace properties of the request.

Type: `WorkspaceProperties (p. 57)` object

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. 60).

**AccessDeniedException**

The user is not authorized to access a resource.

HTTP Status Code: 400

**InvalidParameterValueException**

One or more parameter values are not valid.

HTTP Status Code: 400
InvalidResourceStateException

The state of the WorkSpace is not valid for this operation.

HTTP Status Code: 400

OperationInProgressException

The properties of this WorkSpace are currently being modified. Try again in a moment.

HTTP Status Code: 400

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

ResourceUnavailableException

The specified resource is not available.

HTTP Status Code: 400

UnsupportedWorkspaceConfigurationException

The configuration of this WorkSpace is not supported for this operation. For more information, see the Amazon WorkSpaces Administration Guide.

HTTP Status Code: 400

See Also

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

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

Reboots the specified WorkSpaces.

To be able to reboot a WorkSpace, the WorkSpace must have a State of AVAILABLE, IMPAIRED, or INOPERABLE.

**Note**
This operation is asynchronous and returns before the WorkSpaces have rebooted.

**Request Syntax**

```json
{
   "RebootWorkspaceRequests": [
       {
           "WorkspaceId": "string"
       }
   ]
}
```

**Request Parameters**

The request accepts the following data in JSON format.

**RebootWorkspaceRequests (p. 26)**

An array of structures that specify the WorkSpaces to reboot.

Type: Array of RebootRequest (p. 41) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

**Response Syntax**

```json
{
   "FailedRequests": [
       {
           "ErrorCode": "string",
           "ErrorMessage": "string",
           "WorkspaceId": "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.

**FailedRequests (p. 26)**

An array of structures representing any WorkSpaces that could not be rebooted.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

See Also

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

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

Rebuilds the specified WorkSpaces.

Rebuilding a WorkSpace is a potentially destructive action that can result in the loss of data. Rebuilding a WorkSpace causes the following to occur:

- The system is restored to the image of the bundle that the WorkSpace is created from. Any applications that have been installed, or system settings that have been made since the WorkSpace was created will be lost.
- The data drive (D drive) is re-created from the last automatic snapshot taken of the data drive. The current contents of the data drive are overwritten. Automatic snapshots of the data drive are taken every 12 hours, so the snapshot can be as much as 12 hours old.

To be able to rebuild a WorkSpace, the WorkSpace must have a **State** of **AVAILABLE** or **ERROR**.

**Note**

This operation is asynchronous and returns before the WorkSpaces have been completely rebuilt.

**Request Syntax**

```json
{
    "RebuildWorkspaceRequests": [
        {
            "WorkspaceId": "string"
        }
    ]
}
```

**Request Parameters**

The request accepts the following data in JSON format.

**RebuildWorkspaceRequests (p. 28)**

An array of structures that specify the WorkSpaces to rebuild.

- Type: Array of **RebuildRequest (p. 42)** objects
- Array Members: Fixed number of 1 item.
- Required: Yes

**Response Syntax**

```json
{
    "FailedRequests": [
        {
            "ErrorCode": "string",
            "ErrorMessage": "string",
            "WorkspaceId": "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.

FailedRequests (p. 28)

An array of structures representing any WorkSpaces that could not be rebuilt.

Type: Array of FailedWorkspaceChangeRequest (p. 40) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

See Also

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

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

Starts the specified WorkSpaces. The WorkSpaces must have a running mode of AutoStop and a state of STOPPED.

Request Syntax

```
{
    "StartWorkspaceRequests": [
    {
        "WorkspaceId": "string"
    }
    ]
}
```

Request Parameters

The request accepts the following data in JSON format.

StartWorkspaceRequests (p. 30)

The requests.

Type: Array of StartRequest (p. 43) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
    "FailedRequests": [
    {
        "ErrorCode": "string",
        "ErrorMessage": "string",
        "WorkspaceId": "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.

FailedRequests (p. 30)

The failed requests.

Type: Array of FailedWorkspaceChangeRequest (p. 40) objects
Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

See Also

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

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

Stops the specified WorkSpaces. The WorkSpaces must have a running mode of AutoStop and a state of AVAILABLE, IMPAIRED, UNHEALTHY, or ERROR.

Request Syntax

```json
{
  "StopWorkspaceRequests": [
    {
      "WorkspaceId": "string"
    }
  ]
}
```

Request Parameters

The request accepts the following data in JSON format.

**StopWorkspaceRequests (p. 32)**

The requests.

Type: Array of StopRequest (p. 44) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```json
{
  "FailedRequests": [
    {
      "ErrorCode": "string",
      "ErrorMessage": "string",
      "WorkspaceId": "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.

**FailedRequests (p. 32)**

The failed requests.

Type: Array of FailedWorkspaceChangeRequest (p. 40) objects
Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

See Also

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

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

Terminating a WorkSpace is a permanent action and cannot be undone. The user's data is not maintained and will be destroyed. If you need to archive any user data, contact Amazon Web Services before terminating the WorkSpace.

You can terminate a WorkSpace that is in any state except SUSPENDED.

**Note**
This operation is asynchronous and returns before the WorkSpaces have been completely terminated.

### Request Syntax

```
{
  "TerminateWorkspaceRequests": [
    {
      "WorkspaceId": "string"
    }
  ]
}
```

### Request Parameters

The request accepts the following data in JSON format.

**TerminateWorkspaceRequests (p. 34)**

An array of structures that specify the WorkSpaces to terminate.

Type: Array of `TerminateRequest (p. 46)` objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

### Response Syntax

```
{
  "FailedRequests": [
    {
      "ErrorCode": "string",
      "ErrorMessage": "string",
      "WorkspaceId": "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.
FailedRequests (p. 34)

An array of structures representing any WorkSpaces that could not be terminated.

Type: Array of FailedWorkspaceChangeRequest (p. 40) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 60).

See Also

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

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

The Amazon WorkSpaces 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:

- ComputeType (p. 37)
- DefaultWorkspaceCreationProperties (p. 38)
- FailedCreateWorkspaceRequest (p. 39)
- FailedWorkspaceChangeRequest (p. 40)
- RebootRequest (p. 41)
- RebuildRequest (p. 42)
- StartRequest (p. 43)
- StopRequest (p. 44)
- Tag (p. 45)
- TerminateRequest (p. 46)
- UserStorage (p. 47)
- Workspace (p. 48)
- WorkspaceBundle (p. 51)
- WorkspaceConnectionStatus (p. 53)
- WorkspaceDirectory (p. 54)
- WorkspaceProperties (p. 57)
- WorkspaceRequest (p. 58)
ComputeType

Contains information about the compute type of a WorkSpace bundle.

Contents

Name

The name of the compute type for the bundle.

Type: String

Valid Values: VALUE | STANDARD | PERFORMANCE

Required: No

See Also

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

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

Contains default WorkSpace creation information.

Contents

CustomSecurityGroupId

The identifier of any custom security groups that are applied to the WorkSpaces when they are created.

Type: String

Pattern: ^sg-\[0-9a-f]{8}$

Required: No

DefaultOu

The organizational unit (OU) in the directory that the WorkSpace machine accounts are placed in.

Type: String

Required: No

EnableInternetAccess

A public IP address will be attached to all WorkSpaces that are created or rebuilt.

Type: Boolean

Required: No

EnableWorkDocs

Specifies if the directory is enabled for Amazon WorkDocs.

Type: Boolean

Required: No

UserEnabledAsLocalAdministrator

The WorkSpace user is an administrator on the WorkSpace.

Type: Boolean

Required: No

See Also

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

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

Contains information about a WorkSpace that could not be created.

Contents

ErrorCode

The error code.
Type: String
Required: No

ErrorMessage

The textual error message.
Type: String
Required: No

WorkspaceRequest

A FailedCreateWorkspaceRequest:WorkspaceRequest (p. 39) object that contains the information about the WorkSpace that could not be created.
Type: WorkspaceRequest (p. 58) object
Required: No

See Also

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

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

Contains information about a WorkSpace that could not be rebooted (RebootWorkspaces (p. 26)), rebuilt (RebuildWorkspaces (p. 28)), terminated (TerminateWorkspaces (p. 34)), started (StartWorkspaces (p. 30)), or stopped (StopWorkspaces (p. 32)).

Contents

ErrorCode

The error code.

Type: String

Required: No

ErrorMessage

The textual error message.

Type: String

Required: No

WorkspaceId

The identifier of the WorkSpace.

Type: String

Pattern: ^ws-[0-9a-z]{8,63}$

Required: No

See Also

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

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

Contains information used with the RebootWorkspaces (p. 26) operation to reboot a WorkSpace.

Contents

WorkspaceId

The identifier of the WorkSpace to reboot.

Type: String

Pattern: ^ws-[0-9a-z]{8,63}$

Required: Yes

See Also

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

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

Contains information used with the RebuildWorkspaces (p. 28) operation to rebuild a WorkSpace.

Contents

WorkspaceId

The identifier of the WorkSpace to rebuild.

Type: String

Pattern: ^ws-[0-9a-z]{8,63}$

Required: Yes

See Also

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

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

Describes the start request.

Contents

WorkspaceId

The ID of the WorkSpace.

Type: String

Pattern: ^ws-\([0-9a-z]{8,63}$

Required: No

See Also

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

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

Describes the stop request.

Contents

WorkspaceId

The ID of the WorkSpace.

Type: String

Pattern: ^ws-[0-9a-z]{8,63}$

Required: No

See Also

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

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

Describes the tag of the WorkSpace.

**Contents**

**Key**

The key of the tag.

Type: String


Required: Yes

**Value**

The value of the tag.

Type: String

Length Constraints: Maximum length of 255.

Required: No

**See Also**

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

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

Contains information used with the TerminateWorkspaces (p. 34) operation to terminate a WorkSpace.

Contents

WorkspaceId

The identifier of the WorkSpace to terminate.

Type: String

Pattern: ^ws-\[0-9a-zA-Z]{8,63}$

Required: Yes

See Also

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

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

Contains information about the user storage for a WorkSpace bundle.

Contents

Capacity

The amount of user storage for the bundle.

Type: String

Length Constraints: Minimum length of 1.

Required: No

See Also

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

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

Contains information about a WorkSpace.

Contents

**BundleId**

The identifier of the bundle that the WorkSpace was created from.

Type: String

Pattern: `^wsb-[0-9a-z]{8,63}$`

Required: No

**ComputerName**

The name of the WorkSpace as seen by the operating system.

Type: String

Required: No

**DirectoryId**

The identifier of the AWS Directory Service directory that the WorkSpace belongs to.

Type: String

Pattern: `^d-[0-9a-f]{8,63}$`

Required: No

**ErrorCode**

If the WorkSpace could not be created, this contains the error code.

Type: String

Required: No

**ErrorMessage**

If the WorkSpace could not be created, this contains a textual error message that describes the failure.

Type: String

Required: No

**IpAddress**

The IP address of the WorkSpace.

Type: String

Required: No

**RootVolumeEncryptionEnabled**

Specifies whether the data stored on the root volume, or C: drive, is encrypted.

Type: Boolean
Required: No

**State**

The operational state of the WorkSpace.

Type: String

Valid Values: PENDING | AVAILABLE | IMPAIRED | UNHEALTHY | REBOOTING | STARTING | REBUILDING | MAINTENANCE | TERMINATING | TERMINATED | SUSPENDED | STOPPING | STOPPED | ERROR

Required: No

**SubnetId**

The identifier of the subnet that the WorkSpace is in.

Type: String

Pattern: ^(subnet-[0-9a-f]{8})$

Required: No

**UserName**

The user that the WorkSpace is assigned to.

Type: String


Required: No

**UserVolumeEncryptionEnabled**

Specifies whether the data stored on the user volume, or D: drive, is encrypted.

Type: Boolean

Required: No

**VolumeEncryptionKey**

The KMS key used to encrypt data stored on your WorkSpace.

Type: String

Required: No

**WorkspaceId**

The identifier of the WorkSpace.

Type: String

Pattern: ^ws-[0-9a-z]{8,63}$

Required: No

**WorkspaceProperties**

Describes the properties of a WorkSpace.

Type: WorkspaceProperties (p. 57) object

Required: No
See Also

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

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

Contains information about a WorkSpace bundle.

Contents

BundleId

The bundle identifier.

Type: String

Pattern: ^wsb-[0-9a-z]{8,63}$

Required: No

ComputeType

A ComputeType (p. 37) object that specifies the compute type for the bundle.

Type: ComputeType (p. 37) object

Required: No

Description

The bundle description.

Type: String

Required: No

Name

The name of the bundle.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Owner

The owner of the bundle. This contains the owner's account identifier, or AMAZON if the bundle is provided by AWS.

Type: String

Required: No

UserStorage

A UserStorage (p. 47) object that specifies the amount of user storage that the bundle contains.

Type: UserStorage (p. 47) object

Required: No

See Also

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

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

Describes the connection status of a WorkSpace.

Contents

ConnectionState

The connection state of the WorkSpace. Returns UNKNOWN if the WorkSpace is in a Stopped state.

Type: String

Valid Values: CONNECTED | DISCONNECTED | UNKNOWN

Required: No

ConnectionStateCheckTimestamp

The timestamp of the connection state check.

Type: Timestamp

Required: No

LastKnownUserConnectionTimestamp

The timestamp of the last known user connection.

Type: Timestamp

Required: No

WorkspaceId

The ID of the WorkSpace.

Type: String

Pattern: ^ws-[0-9a-z]{8,63}$

Required: No

See Also

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

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

Contains information about an AWS Directory Service directory for use with Amazon WorkSpaces.

Contents

**Alias**

The directory alias.

Type: String

Required: No

**CustomerUserName**

The user name for the service account.

Type: String


Required: No

**DirectoryId**

The directory identifier.

Type: String

Pattern: ^d-[0-9a-f]{8,63}$

Required: No

**DirectoryName**

The name of the directory.

Type: String

Required: No

**DirectoryType**

The directory type.

Type: String

Valid Values: SIMPLE_AD | AD_CONNECTOR

Required: No

**DnsIpAddresses**

An array of strings that contains the IP addresses of the DNS servers for the directory.

Type: Array of strings

Required: No

**IamRoleId**

The identifier of the IAM role. This is the role that allows Amazon WorkSpaces to make calls to other services, such as Amazon EC2, on your behalf.
Type: String

Pattern: ^arn:aws:[A-Za-z0-9][A-za-z0-9_/.-]{0,62}:[A-za-z0-9_.-]{0,63}:[A-za-z0-9_.-]{0,63}:[A-Za-z0-9][A-za-z0-9_/.-]{0,127}$

Required: No

**RegistrationCode**

The registration code for the directory. This is the code that users enter in their Amazon WorkSpaces client application to connect to the directory.

Type: String


Required: No

**State**

The state of the directory's registration with Amazon WorkSpaces

Type: String

Valid Values: REGISTERING | REGISTERED | DEREGISTERING | DEREGISTERED | ERROR

Required: No

**SubnetIds**

An array of strings that contains the identifiers of the subnets used with the directory.

Type: Array of strings

Pattern: ^(subnet-[0-9a-f]{8})$

Required: No

**WorkspaceCreationProperties**

A structure that specifies the default creation properties for all WorkSpaces in the directory.

Type: DefaultWorkspaceCreationProperties (p. 38) object

Required: No

**WorkspaceSecurityGroupId**

The identifier of the security group that is assigned to new WorkSpaces.

Type: String

Pattern: ^(sg-[0-9a-f]{8})$

Required: No

**See Also**

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
See Also

- AWS SDK for Ruby V2
WorkspaceProperties

Describes the properties of a WorkSpace.

Contents

RunningMode

The running mode of the WorkSpace. AlwaysOn WorkSpaces are billed monthly. AutoStop WorkSpaces are billed by the hour and stopped when no longer being used in order to save on costs.

Type: String

Valid Values: AUTO_STOP | ALWAYS_ON

Required: No

RunningModeAutoStopTimeoutInMinutes

The time after a user logs off when WorkSpaces are automatically stopped. Configured in 60 minute intervals.

Type: Integer

Required: No

See Also

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

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

Contains information about a WorkSpace creation request.

Contents

BundleId

The identifier of the bundle to create the WorkSpace from. You can use the DescribeWorkspaceBundles (p. 12) operation to obtain a list of the bundles that are available.

Type: String

Pattern: ^wsb-[0-9a-z]{8,63}$

Required: Yes

DirectoryId

The identifier of the AWS Directory Service directory to create the WorkSpace in. You can use the DescribeWorkspaceDirectories (p. 15) operation to obtain a list of the directories that are available.

Type: String

Pattern: ^d-[0-9a-f]{8,63}$

Required: Yes

RootVolumeEncryptionEnabled

Specifies whether the data stored on the root volume, or C: drive, is encrypted.

Type: Boolean

Required: No

Tags

The tags of the WorkSpace request.

Type: Array of Tag (p. 45) objects

Required: No

UserName

The username that the WorkSpace is assigned to. This username must exist in the AWS Directory Service directory specified by the DirectoryId member.

Type: String


Required: Yes

UserVolumeEncryptionEnabled

Specifies whether the data stored on the user volume, or D: drive, is encrypted.

Type: Boolean

Required: No
VolumeEncryptionKey

The KMS key used to encrypt data stored on your WorkSpace.

Type: String
Required: No

WorkspaceProperties

Describes the properties of a WorkSpace.

Type: WorkspaceProperties (p. 57) object
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
Common Errors

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

AccessDeniedException
You do not have sufficient access to perform this action.
HTTP Status Code: 400

IncompleteSignature
The request signature does not conform to AWS standards.
HTTP Status Code: 400

InternalFailure
The request processing has failed because of an unknown error, exception or failure.
HTTP Status Code: 500

InvalidAction
The action or operation requested is invalid. Verify that the action is typed correctly.
HTTP Status Code: 400

InvalidClientTokenId
The X.509 certificate or AWS access key ID provided does not exist in our records.
HTTP Status Code: 403

InvalidParameterCombination
Parameters that must not be used together were used together.
HTTP Status Code: 400

InvalidParameterValue
An invalid or out-of-range value was supplied for the input parameter.
HTTP Status Code: 400

InvalidQueryParameter
The AWS query string is malformed or does not adhere to AWS standards.
HTTP Status Code: 400

MalformedQueryString
The query string contains a syntax error.
HTTP Status Code: 404

MissingAction
The request is missing an action or a required parameter.
HTTP Status Code: 400
MissingAuthenticationToken

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

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

OptInRequired

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

HTTP Status Code: 403

RequestExpired

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

HTTP Status Code: 400

ServiceUnavailable

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

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

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

HTTP Status Code: 400
Logging Amazon WorkSpaces API Calls by Using CloudTrail

The Amazon WorkSpaces API is integrated with AWS CloudTrail, a service that captures API calls made by or on behalf of Amazon WorkSpaces in your AWS account and delivers the log files to an Amazon S3 bucket that you specify. CloudTrail captures API calls from the Amazon WorkSpaces API and CLI. Using the information collected by CloudTrail, you can determine what request was made to Amazon WorkSpaces, the source IP address from which the request was made, who made the request, when it was made, and so on. For more information about CloudTrail, including how to configure and enable it, see the AWS CloudTrail User Guide.

Amazon WorkSpaces Information in CloudTrail

When CloudTrail logging is enabled in your AWS account, API calls made to Amazon WorkSpaces actions are tracked in log files. Amazon WorkSpaces records are written together with other AWS service records in a log file. CloudTrail determines when to create and write to a new file based on a time period and file size.

All Amazon WorkSpaces actions, except those performed from the Amazon WorkSpaces console, are logged by CloudTrail. For example, calls to create, rebuild, or terminate WorkSpaces generate entries in CloudTrail log files. For more information, see Actions (p. 2).

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 Amazon WorkSpaces 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 Amazon WorkSpaces 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 parameters, the date and time of the action, and so on. The log entries are not guaranteed to be in any particular order. That is, they are not an ordered stack trace of the public API calls.
Any sensitive information, such as passwords, authentication tokens, file comments, and file contents are redacted in the log entries.

The following example shows an example of a CloudTrail log entry for Amazon WorkSpaces.

```json
{
  "Records" : [
    {
      "eventVersion" : "1.02",
      "userIdentity" : {
        "type" : "IAMUser",
        "principalId" : "user_id",
        "arn" : "user_arn",
        "accountId" : "account_id",
        "accessKeyId" : "access_key_id",
        "userName" : "username"
      },
      "eventTime" : "event_time",
      "eventSource" : "workspaces.amazonaws.com",
      "eventName" : "DescribeWorkspaces",
      "awsRegion" : "region",
      "sourceIPAddress" : "IP_address",
      "userAgent" : "user_agent",
      "requestParameters" : {
        "requestContext" : {
          "awsAccountId" : "account_id"
        }
      },
      "responseElements" : {
        "workspaces" : [
          {
            "bundleId" : "bundle_id",
            "userName" : "workspace_user_name",
            "ipAddress" : "ip_address",
            "directoryId" : "directory_id",
            "state" : "state",
            "workspaceId" : "workspace_id",
            "subnetId" : "subnet_id"
          }
        ],
        "requestId" : "request_id",
        "eventID" : "event_id",
        "eventType" : "AwsApiCall",
        "recipientAccountId" : "account_id"
      }
    }
  ]
}
```