AWS Snowball

API Reference

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Job Management API Reference

The job management API for AWS Snowball is a network protocol based on HTTP (RFC 2616). For more information on this RFC, see HTTP (RFC 2616) on the IETF website. For each call to the job management API, you make an HTTP request to the region-specific job management API endpoint for the AWS Region where you want to manage jobs. The API uses JSON (RFC 4627) documents for HTTP request/response bodies.

> **Note**
> API calls made within the US regions for listing jobs or describing addresses return all jobs or addresses within the US for that account.

The job management API for Snowball is an RPC model. In this model, there is a fixed set of operations and the syntax for each operation is known to clients without any previous interaction. Following, you can find a description of each API operation using an abstract RPC notation, with an operation name that does not appear on the wire. For each operation, the topic specifies the mapping to HTTP request elements.

The specific job management operation to which a given request maps is determined by a combination of the request's method (GET, PUT, POST, or DELETE) and which of the various patterns its Request-URI matches. If the operation is PUT or POST, Snowball extracts call arguments from the Request-URI path segment, query parameters, and the JSON object in the request body.

Although the operation name, such as `CreateJob`, doesn't appear on the wire, these operation names are meaningful in AWS Identity and Access Management (IAM) policies. The operation name is also used to name commands in command-line tools and elements of the AWS SDK APIs. For example, the AWS Command Line Interface (AWS CLI) command `create-job` maps to the `CreateJob` operation. The operation name also appears in CloudTrail logs for Snowball API calls.

For information on installing and setting up the AWS CLI, including specifying what regions you want to make AWS CLI calls against, see the AWS Command Line Interface User Guide.

> **Note**
> The job management API provides programmatic access to the same functionality available in the AWS Snowball Management Console, that is to create and manage jobs for Snowball. To transfer data locally with a Snowball appliance, use the Snowball client or the S3 SDK Adapter for Snowball. For more information, see Transferring Data with a Snowball in the *AWS Snowball User Guide*.
> If you use a Snowball Edge, use the Snowball client to unlock the appliance. For more information, see Using the Snowball Client in the *AWS Snowball Developer Guide*.

API Endpoint

The API endpoint is the Domain Name Service (DNS) name used as a host in the HTTP URI for the API calls. These API endpoints are region-specific and take the following form.

```
snowball.aws-region.amazonaws.com
```

For example, the Snowball API endpoint for the US West (Oregon) Region is the following.

```
snowball.us-west-2.amazonaws.com
```

For a list of AWS Regions that Snowball supports (where you can create and manage jobs), see AWS Import/Export in the *AWS General Reference*.

The region-specific API endpoint defines the scope of the Snowball resources that are accessible when you make an API call. For example, when you call the `ListJobs` operation using the preceding endpoint, you get a list of jobs in the US West (Oregon) Region that have been created in your account.

API Version

The version of the API being used for a call is identified by the first path segment of the request URI, and its form is an ISO 8601 date. The documentation describes API version 2016-06-30.

API Permission Policy Reference

The following policies are needed for creating jobs with the job management API for Snowball.

Role Trust Policy for Creating Jobs

Using the job management API to create jobs requires the following trust policy.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "",
      "Effect": "Allow",
      "Principal": {
        "Service": "importexport.amazonaws.com"
      },
      "Action": "sts:AssumeRole",
      "Condition": {
        "StringEquals": {
          "sts:ExternalId": "AWSIE"
        }
      }
    }
  ]
}
```

> **Note**
> To learn more about trust policies, see Modifying a Role in the IAM User Guide.

Role Policy for Creating Import Jobs

Creating an import job requires the following role policy.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": [
                "s3:GetBucketLocation",
                "s3:ListBucketMultipartUploads"
            ],
            "Resource": "arn:aws:s3:::*"
        },
```

```
            {
                "Effect": "Allow",
                "Action": [
                    "s3:GetBucketPolicy",
                    "s3:PutObject",
                    "s3:AbortMultipartUpload",
                    "s3:ListMultipartUploadParts",
                    "s3:PutObjectAcl"
                ],
                "Resource": "arn:aws:s3:::*"
            },
            {
                "Effect": "Allow",
                "Action": [
                    "snowball:*"
                ],
                "Resource": [
                    "*"
                ]
            }
        ]
}
```

Role Policy for Creating Export Jobs

Creating an export job requires the following role policy.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:GetBucketLocation",
        "s3:GetObject",
        "s3:ListBucket"
      ],
      "Resource": "arn:aws:s3:::*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "snowball:*"
      ],
      "Resource": [
        "*"
      ]
    }
  ]
}
```

Amazon S3 Bucket Policy Principal for Creating Jobs

In some cases, the Amazon S3 buckets that you use with Snowball have bucket policies in place that require listing the role session name of the assumed role. In these cases, you need to specify a principal in those policies that identifies `AWSImportExport-Validation`. The following Amazon S3 bucket policy example demonstrates how to do so.

Example

```
{
 "Version": "2012-10-17",
```

```
 "Statement": {
  "Sid": "Allow AWS Snowball To Create Jobs",
  "Effect": "Deny",
  "NotPrincipal": {
   "AWS": [
    "arn:aws:iam::111122223333:role/rolename",
    "arn:aws:sts::111122223333:assumed-role/rolename/AWSImportExport-Validation",
    "arn:aws:iam::111122223333:root"
   ]
  },
  "Action": "S3:*",
  "Resource": ["arn:aws:s3:::examplebucket/*"]
 }
}
```

In this policy example, we deny access to all principals except the one named in the `NotPrincipal` element. For more information on how to use `NotPrincipal`, see NotPrincipal in the *IAM User Guide*.

> **Note**
> For jobs in AWS GovCloud (US), Snowball uses `AWSIEJob` as the role session name of the assumed role.

Creating an IAM Role for Snowball and Snowball Edge

An IAM role policy must be created with read and write permissions for your Amazon S3 buckets. The IAM role must also have a trust relationship with Snowball. Having a trust relationship means that AWS can write the data in the Snowball and in your Amazon S3 buckets, depending on whether you're importing or exporting data.

When you create a job in the AWS Snowball Management Console, creating the necessary IAM role occurs in step 4 in the **Permission** section. This process is automatic. The IAM role that you allow Snowball to assume is only used to write your data to your bucket when the Snowball with your transferred data arrives at AWS. The following procedure outlines that process.

To create the IAM role for your import job

1. Sign in to the AWS Management Console and open the AWS Snowball console at https://console.aws.amazon.com/importexport/.
2. Choose **Create job**.
3. In the first step, fill out the details for your import job into Amazon S3, and then choose **Next**.
4. In the second step, under **Permission**, choose **Create/Select IAM Role**.

    The IAM Management Console opens, showing the IAM role that AWS uses to copy objects into your specified Amazon S3 buckets.
5. Review the details on this page, and then choose **Allow**.

    You return to the AWS Snowball Management Console, where **Selected IAM role ARN** contains the Amazon Resource Name (ARN) for the IAM role that you just created.
6. Choose **Next** to finish creating your IAM role.

The preceding procedure creates an IAM role that has write permissions for the Amazon S3 buckets that you plan to import your data into. The IAM role that is created has one of the following structures, depending on whether it's for an import job or export job.

IAM Role for an Import Job

```
        {
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:GetBucketLocation",
        "s3:ListBucketMultipartUploads"
      ],
      "Resource": "arn:aws:s3:::*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "s3:GetBucketPolicy",
        "s3:PutObject",
        "s3:AbortMultipartUpload",
        "s3:ListMultipartUploadParts",
        "s3:PutObjectAcl"
      ],
      "Resource": "arn:aws:s3:::*"
    }
  ]
}
```

If you use server-side encryption with AWS KMS–managed keys (SSE-KMS) to encrypt the Amazon S3 buckets associated with your import job, you also need to add the following statement to your IAM role.

```
{
    "Effect": "Allow",
    "Action": [
      "kms:GenerateDataKey"
    ],
    "Resource": "arn:aws:s3:::SSEKMSEncryptedBucketName"
}
```

IAM Role for an Export Job

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:GetBucketLocation",
        "s3:GetBucketPolicy",
        "s3:GetObject",
        "s3:ListBucket"
      ],
      "Resource": "arn:aws:s3:::*"
    }
  ]
}
```

If you use server-side encryption with AWS KMS–managed keys to encrypt the Amazon S3 buckets associated with your export job, you also need to add the following statement to your IAM role.

```
{
```

```
    "Effect": "Allow",
    "Action": [
         "kms:Decrypt"
     ],
     "Resource": "arn:aws:s3:::SSEKMSEncryptedBucketName"
}
```

Actions

The following actions are supported:

CancelCluster

Cancels a cluster job. You can only cancel a cluster job while it's in the `AwaitingQuorum` status. You'll have at least an hour after creating a cluster job to cancel it.

Request Syntax

```
{
    "ClusterId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

ClusterId (p. 8)

The 39-character ID for the cluster that you want to cancel, for example `CID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

Pattern: `CID[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. 86).

InvalidJobStateException

The action can't be performed because the job's current state doesn't allow that action to be performed.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

HTTP Status Code: 400

KMSRequestFailedException

The provided AWS Key Management Service key lacks the permissions to perform the specified CreateJob (p. 18) or UpdateJob (p. 53) action.

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

CancelJob

Cancels the specified job. You can only cancel a job before its `JobState` value changes to `PreparingAppliance`. Requesting the `ListJobs` or `DescribeJob` action returns a job's `JobState` as part of the response element data returned.

Request Syntax

```
{
    "JobId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

JobId (p. 10)

The 39-character job ID for the job that you want to cancel, for example `JID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

Pattern: `(M|J)ID[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. 86).

InvalidJobStateException

The action can't be performed because the job's current state doesn't allow that action to be performed.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

HTTP Status Code: 400

KMSRequestFailedException

The provided AWS Key Management Service key lacks the permissions to perform the specified CreateJob (p. 18) or UpdateJob (p. 53) action.

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

CreateAddress

Creates an address for a Snowball to be shipped to. Addresses are validated at the time of creation. The address you provide must be located within the serviceable area of your region. If the address is invalid or unsupported, then an exception is thrown.

Request Syntax

```
{
    "Address": {
        "AddressId": "string",
        "City": "string",
        "Company": "string",
        "Country": "string",
        "IsRestricted": boolean,
        "Landmark": "string",
        "Name": "string",
        "PhoneNumber": "string",
        "PostalCode": "string",
        "PrefectureOrDistrict": "string",
        "StateOrProvince": "string",
        "Street1": "string",
        "Street2": "string",
        "Street3": "string"
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

Address (p. 12)

The address that you want the Snowball shipped to.

Type: Address (p. 58) object

Required: Yes

Response Syntax

```
{
    "AddressId": "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.

AddressId (p. 12)

The automatically generated ID for a specific address. You'll use this ID when you create a job to specify which address you want the Snowball for that job shipped to.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidAddressException

The address provided was invalid. Check the address with your region's carrier, and try again.

HTTP Status Code: 400

UnsupportedAddressException

The address is either outside the serviceable area for your region, or an error occurred. Check the address with your region's carrier and try again. If the issue persists, contact AWS Support.

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

CreateCluster

Creates an empty cluster. Each cluster supports five nodes. You use the CreateJob (p. 18) action separately to create the jobs for each of these nodes. The cluster does not ship until these five node jobs have been created.

Request Syntax

```
{
    "AddressId": "string",
    "Description": "string",
    "ForwardingAddressId": "string",
    "JobType": "string",
    "KmsKeyARN": "string",
    "Notification": {
        "JobStatesToNotify": [ "string" ],
        "NotifyAll": boolean,
        "SnsTopicARN": "string"
    },
    "Resources": {
        "Ec2AmiResources": [
            {
                "AmiId": "string",
                "SnowballAmiId": "string"
            }
        ],
        "LambdaResources": [
            {
                "EventTriggers": [
                    {
                        "EventResourceARN": "string"
                    }
                ],
                "LambdaArn": "string"
            }
        ],
        "S3Resources": [
            {
                "BucketArn": "string",
                "KeyRange": {
                    "BeginMarker": "string",
                    "EndMarker": "string"
                }
            }
        ]
    },
    "RoleARN": "string",
    "ShippingOption": "string",
    "SnowballType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

AddressId (p. 14)

> The ID for the address that you want the cluster shipped to.

Type: String

Length Constraints: Fixed length of 40.

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

Required: Yes

Description (p. 14)

An optional description of this specific cluster, for example `Environmental Data Cluster-01`.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ForwardingAddressId (p. 14)

This field is not supported in your region.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

JobType (p. 14)

The type of job for this cluster. Currently, the only job type supported for clusters is `LOCAL_USE`.

Type: String

Valid Values: `IMPORT | EXPORT | LOCAL_USE`

Required: Yes

KmsKeyARN (p. 14)

The `KmsKeyARN` value that you want to associate with this cluster. `KmsKeyARN` values are created by using the CreateKey API action in AWS Key Management Service (AWS KMS).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:kms:.*:[0-9]{12}:key/.*`

Required: No

Notification (p. 14)

The Amazon Simple Notification Service (Amazon SNS) notification settings for this cluster.

Type: Notification (p. 80) object

Required: No

Resources (p. 14)

The resources associated with the cluster job. These resources include Amazon S3 buckets and optional AWS Lambda functions written in the Python language.

Type: JobResource (p. 77) object

Required: Yes

RoleARN (p. 14)

The `RoleARN` that you want to associate with this cluster. `RoleArn` values are created by using the CreateRole API action in AWS Identity and Access Management (IAM).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:iam::[0-9]{12}:role/.*`

Required: Yes

ShippingOption (p. 14)

The shipping speed for each node in this cluster. This speed doesn't dictate how soon you'll get each Snowball Edge device, rather it represents how quickly each device moves to its destination while in transit. Regional shipping speeds are as follows:

- In Australia, you have access to express shipping. Typically, devices shipped express are delivered in about a day.
- In the European Union (EU), you have access to express shipping. Typically, Snowball Edges shipped express are delivered in about a day. In addition, most countries in the EU have access to standard shipping, which typically takes less than a week, one way.
- In India, Snowball Edges are delivered in one to seven days.
- In the US, you have access to one-day shipping and two-day shipping.

Type: String

Valid Values: `SECOND_DAY | NEXT_DAY | EXPRESS | STANDARD`

Required: Yes

SnowballType (p. 14)

The type of AWS Snowball device to use for this cluster. Currently, the only supported device type for cluster jobs is `EDGE`.

Type: String

Valid Values: `STANDARD | EDGE`

Required: No

Response Syntax

```
{
    "ClusterId": "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.

ClusterId (p. 16)

The automatically generated ID for a cluster.

Type: String

Length Constraints: Fixed length of 39.

Pattern: `CID[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. 86).

Ec2RequestFailedException

Your IAM user lacks the necessary Amazon EC2 permissions to perform the attempted action.

HTTP Status Code: 400

InvalidInputCombinationException

Job or cluster creation failed. One ore more inputs were invalid. Confirm that the
CreateCluster:SnowballType (p. 16) value supports your CreateJob:JobType (p. 19), and try
again.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and
try again.

HTTP Status Code: 400

KMSRequestFailedException

The provided AWS Key Management Service key lacks the permissions to perform the specified
CreateJob (p. 18) or UpdateJob (p. 53) action.

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

CreateJob

Creates a job to import or export data between Amazon S3 and your on-premises data center. Your AWS account must have the right trust policies and permissions in place to create a job for Snowball. If you're creating a job for a node in a cluster, you only need to provide the `clusterId` value; the other job attributes are inherited from the cluster.

Request Syntax

```
{
    "AddressId": "string",
    "ClusterId": "string",
    "Description": "string",
    "ForwardingAddressId": "string",
    "JobType": "string",
    "KmsKeyARN": "string",
    "Notification": {
        "JobStatesToNotify": [ "string" ],
        "NotifyAll": boolean,
        "SnsTopicARN": "string"
    },
    "Resources": {
        "Ec2AmiResources": [
            {
                "AmiId": "string",
                "SnowballAmiId": "string"
            }
        ],
        "LambdaResources": [
            {
                "EventTriggers": [
                    {
                        "EventResourceARN": "string"
                    }
                ],
                "LambdaArn": "string"
            }
        ],
        "S3Resources": [
            {
                "BucketArn": "string",
                "KeyRange": {
                    "BeginMarker": "string",
                    "EndMarker": "string"
                }
            }
        ]
    },
    "RoleARN": "string",
    "ShippingOption": "string",
    "SnowballCapacityPreference": "string",
    "SnowballType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

AddressId (p. 18)

The ID for the address that you want the Snowball shipped to.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

ClusterId (p. 18)

The ID of a cluster. If you're creating a job for a node in a cluster, you need to provide only this `clusterId` value. The other job attributes are inherited from the cluster.

Type: String

Length Constraints: Fixed length of 39.

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

Required: No

Description (p. 18)

Defines an optional description of this specific job, for example `Important Photos 2016-08-11`.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ForwardingAddressId (p. 18)

This field is not supported in your region.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

JobType (p. 18)

Defines the type of job that you're creating.

Type: String

Valid Values: `IMPORT | EXPORT | LOCAL_USE`

Required: No

KmsKeyARN (p. 18)

The `KmsKeyARN` that you want to associate with this job. `KmsKeyARN`s are created using the
CreateKey AWS Key Management Service (KMS) API action.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:kms:.*:[0-9]{12}:key/.*`

Required: No

Notification (p. 18)

Defines the Amazon Simple Notification Service (Amazon SNS) notification settings for this job.

Type: Notification (p. 80) object

Required: No

Resources (p. 18)

Defines the Amazon S3 buckets associated with this job.

With `IMPORT` jobs, you specify the bucket or buckets that your transferred data will be imported into.

With `EXPORT` jobs, you specify the bucket or buckets that your transferred data will be exported from. Optionally, you can also specify a `KeyRange` value. If you choose to export a range, you define the length of the range by providing either an inclusive `BeginMarker` value, an inclusive `EndMarker` value, or both. Ranges are UTF-8 binary sorted.

Type: JobResource (p. 77) object

Required: No

RoleARN (p. 18)

The `RoleARN` that you want to associate with this job. `RoleArns` are created using the CreateRole AWS Identity and Access Management (IAM) API action.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:iam::[0-9]{12}:role/.*`

Required: No

ShippingOption (p. 18)

The shipping speed for this job. This speed doesn't dictate how soon you'll get the Snowball, rather it represents how quickly the Snowball moves to its destination while in transit. Regional shipping speeds are as follows:

- In Australia, you have access to express shipping. Typically, Snowballs shipped express are delivered in about a day.
- In the European Union (EU), you have access to express shipping. Typically, Snowballs shipped express are delivered in about a day. In addition, most countries in the EU have access to standard shipping, which typically takes less than a week, one way.
- In India, Snowballs are delivered in one to seven days.
- In the US, you have access to one-day shipping and two-day shipping.

Type: String

Valid Values: `SECOND_DAY | NEXT_DAY | EXPRESS | STANDARD`

Required: No

SnowballCapacityPreference (p. 18)

If your job is being created in one of the US regions, you have the option of specifying what size Snowball you'd like for this job. In all other regions, Snowballs come with 80 TB in storage capacity.

Type: String

Valid Values: `T50 | T80 | T100 | NoPreference`

Required: No

SnowballType (p. 18)

The type of AWS Snowball device to use for this job. Currently, the only supported device type for cluster jobs is `EDGE`.

Type: String

Valid Values: `STANDARD | EDGE`

Required: No

Response Syntax

```
{
    "JobId": "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.

JobId (p. 21)

The automatically generated ID for a job, for example `JID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

Pattern: `(M|J)ID[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. 86).

ClusterLimitExceededException

Job creation failed. Currently, clusters support five nodes. If you have less than five nodes for your cluster and you have more nodes to create for this cluster, try again and create jobs until your cluster has exactly five notes.

HTTP Status Code: 400

Ec2RequestFailedException

Your IAM user lacks the necessary Amazon EC2 permissions to perform the attempted action.

HTTP Status Code: 400

InvalidInputCombinationException

Job or cluster creation failed. One ore more inputs were invalid. Confirm that the
CreateCluster:SnowballType (p. 16) value supports your CreateJob:JobType (p. 19), and try again.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and
try again.

HTTP Status Code: 400

KMSRequestFailedException

The provided AWS Key Management Service key lacks the permissions to perform the specified
CreateJob (p. 18) or UpdateJob (p. 53) action.

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

DescribeAddress

Takes an `AddressId` and returns specific details about that address in the form of an `Address` object.

Request Syntax

```
{
    "AddressId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

AddressId (p. 23)

The automatically generated ID for a specific address.

Type: String

Length Constraints: Fixed length of 40.

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

Required: Yes

Response Syntax

```
{
    "Address": {
        "AddressId": "string",
        "City": "string",
        "Company": "string",
        "Country": "string",
        "IsRestricted": boolean,
        "Landmark": "string",
        "Name": "string",
        "PhoneNumber": "string",
        "PostalCode": "string",
        "PrefectureOrDistrict": "string",
        "StateOrProvince": "string",
        "Street1": "string",
        "Street2": "string",
        "Street3": "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.

Address (p. 23)

The address that you want the Snowball or Snowballs associated with a specific job to be shipped to.

Type: Address (p. 58) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

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

DescribeAddresses

Returns a specified number of `ADDRESS` objects. Calling this API in one of the US regions will return addresses from the list of all addresses associated with this account in all US regions.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

MaxResults (p. 25)

The number of `ADDRESS` objects to return.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextToken (p. 25)

HTTP requests are stateless. To identify what object comes "next" in the list of `ADDRESS` objects, you have the option of specifying a value for `NextToken` as the starting point for your list of returned addresses.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
    "Addresses": [
        {
            "AddressId": "string",
            "City": "string",
            "Company": "string",
            "Country": "string",
            "IsRestricted": boolean,
            "Landmark": "string",
            "Name": "string",
            "PhoneNumber": "string",
            "PostalCode": "string",
            "PrefectureOrDistrict": "string",
            "StateOrProvince": "string",
```

```
            "Street1": "string",
            "Street2": "string",
            "Street3": "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.

Addresses (p. 25)

> The Snowball shipping addresses that were created for this account.
>
> Type: Array of Address (p. 58) objects

NextToken (p. 25)

> HTTP requests are stateless. If you use the automatically generated `NextToken` value in your next `DescribeAddresses` call, your list of returned addresses will start from this point in the array.
>
> Type: String
>
> Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidNextTokenException

> The `NextToken` string was altered unexpectedly, and the operation has stopped. Run the operation without changing the `NextToken` string, and try again.
>
> HTTP Status Code: 400

InvalidResourceException

> The specified resource can't be found. Check the information you provided in your last request, and try again.
>
> 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

DescribeCluster

Returns information about a specific cluster including shipping information, cluster status, and other important metadata.

Request Syntax

```
{
    "ClusterId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

ClusterId (p. 28)

The automatically generated ID for a cluster.

Type: String

Length Constraints: Fixed length of 39.

Pattern: CID[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}

Required: Yes

Response Syntax

```
{
    "ClusterMetadata": {
        "AddressId": "string",
        "ClusterId": "string",
        "ClusterState": "string",
        "CreationDate": number,
        "Description": "string",
        "ForwardingAddressId": "string",
        "JobType": "string",
        "KmsKeyARN": "string",
        "Notification": {
            "JobStatesToNotify": [ "string" ],
            "NotifyAll": boolean,
            "SnsTopicARN": "string"
        },
        "Resources": {
            "Ec2AmiResources": [
                {
                    "AmiId": "string",
                    "SnowballAmiId": "string"
                }
            ],
            "LambdaResources": [
                {
                    "EventTriggers": [
```

```
                {
                    "EventResourceARN": "string"
                }
            ],
            "LambdaArn": "string"
        }
    ],
    "S3Resources": [
        {
            "BucketArn": "string",
            "KeyRange": {
                "BeginMarker": "string",
                "EndMarker": "string"
            }
        }
    ]
},
"RoleARN": "string",
"ShippingOption": "string",
"SnowballType": "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.

ClusterMetadata (p. 28)

Information about a specific cluster, including shipping information, cluster status, and other important metadata.

Type: ClusterMetadata (p. 62) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

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](#)

DescribeJob

Returns information about a specific job including shipping information, job status, and other important metadata.

Request Syntax

```
{
    "JobId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

JobId (p. 31)

The automatically generated ID for a job, for example `JID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

Pattern: `(M|J)ID[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}`

Required: Yes

Response Syntax

```
{
    "JobMetadata": {
        "AddressId": "string",
        "ClusterId": "string",
        "CreationDate": number,
        "DataTransferProgress": {
            "BytesTransferred": number,
            "ObjectsTransferred": number,
            "TotalBytes": number,
            "TotalObjects": number
        },
        "Description": "string",
        "ForwardingAddressId": "string",
        "JobId": "string",
        "JobLogInfo": {
            "JobCompletionReportURI": "string",
            "JobFailureLogURI": "string",
            "JobSuccessLogURI": "string"
        },
        "JobState": "string",
        "JobType": "string",
        "KmsKeyARN": "string",
        "Notification": {
            "JobStatesToNotify": [ "string" ],
```

```
            "NotifyAll": boolean,
            "SnsTopicARN": "string"
        },
        "Resources": {
            "Ec2AmiResources": [
                {
                    "AmiId": "string",
                    "SnowballAmiId": "string"
                }
            ],
            "LambdaResources": [
                {
                    "EventTriggers": [
                        {
                            "EventResourceARN": "string"
                        }
                    ],
                    "LambdaArn": "string"
                }
            ],
            "S3Resources": [
                {
                    "BucketArn": "string",
                    "KeyRange": {
                        "BeginMarker": "string",
                        "EndMarker": "string"
                    }
                }
            ]
        },
        "RoleARN": "string",
        "ShippingDetails": {
            "InboundShipment": {
                "Status": "string",
                "TrackingNumber": "string"
            },
            "OutboundShipment": {
                "Status": "string",
                "TrackingNumber": "string"
            },
            "ShippingOption": "string"
        },
        "SnowballCapacityPreference": "string",
        "SnowballType": "string"
    },
    "SubJobMetadata": [
        {
            "AddressId": "string",
            "ClusterId": "string",
            "CreationDate": number,
            "DataTransferProgress": {
                "BytesTransferred": number,
                "ObjectsTransferred": number,
                "TotalBytes": number,
                "TotalObjects": number
            },
            "Description": "string",
            "ForwardingAddressId": "string",
            "JobId": "string",
            "JobLogInfo": {
                "JobCompletionReportURI": "string",
                "JobFailureLogURI": "string",
                "JobSuccessLogURI": "string"
            },
            "JobState": "string",
            "JobType": "string",
```

```
            "KmsKeyARN": "string",
            "Notification": {
                "JobStatesToNotify": [ "string" ],
                "NotifyAll": boolean,
                "SnsTopicARN": "string"
            },
            "Resources": {
                "Ec2AmiResources": [
                    {
                        "AmiId": "string",
                        "SnowballAmiId": "string"
                    }
                ],
                "LambdaResources": [
                    {
                        "EventTriggers": [
                            {
                                "EventResourceARN": "string"
                            }
                        ],
                        "LambdaArn": "string"
                    }
                ],
                "S3Resources": [
                    {
                        "BucketArn": "string",
                        "KeyRange": {
                            "BeginMarker": "string",
                            "EndMarker": "string"
                        }
                    }
                ]
            },
            "RoleARN": "string",
            "ShippingDetails": {
                "InboundShipment": {
                    "Status": "string",
                    "TrackingNumber": "string"
                },
                "OutboundShipment": {
                    "Status": "string",
                    "TrackingNumber": "string"
                },
                "ShippingOption": "string"
            },
            "SnowballCapacityPreference": "string",
            "SnowballType": "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.

JobMetadata (p. 31)

Information about a specific job, including shipping information, job status, and other important metadata.

Type: JobMetadata (p. 73) object

SubJobMetadata (p. 31)

Information about a specific job part (in the case of an export job), including shipping information, job status, and other important metadata.

Type: Array of JobMetadata (p. 73) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

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

GetJobManifest

Returns a link to an Amazon S3 presigned URL for the manifest file associated with the specified `JobId` value. You can access the manifest file for up to 60 minutes after this request has been made. To access the manifest file after 60 minutes have passed, you'll have to make another call to the `GetJobManifest` action.

The manifest is an encrypted file that you can download after your job enters the `WithCustomer` status. The manifest is decrypted by using the `UnlockCode` code value, when you pass both values to the Snowball through the Snowball client when the client is started for the first time.

As a best practice, we recommend that you don't save a copy of an `UnlockCode` value in the same location as the manifest file for that job. Saving these separately helps prevent unauthorized parties from gaining access to the Snowball associated with that job.

The credentials of a given job, including its manifest file and unlock code, expire 90 days after the job is created.

Request Syntax

```
{
    "JobId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

JobId (p. 35)

The ID for a job that you want to get the manifest file for, for example `JID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

Pattern: `(M|J)ID[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}`

Required: Yes

Response Syntax

```
{
    "ManifestURI": "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.

ManifestURI (p. 35)

The Amazon S3 presigned URL for the manifest file associated with the specified `JobId` value.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidJobStateException

The action can't be performed because the job's current state doesn't allow that action to be performed.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

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

GetJobUnlockCode

Returns the `UnlockCode` code value for the specified job. A particular `UnlockCode` value can be accessed for up to 90 days after the associated job has been created.

The `UnlockCode` value is a 29-character code with 25 alphanumeric characters and 4 hyphens. This code is used to decrypt the manifest file when it is passed along with the manifest to the Snowball through the Snowball client when the client is started for the first time.

As a best practice, we recommend that you don't save a copy of the `UnlockCode` in the same location as the manifest file for that job. Saving these separately helps prevent unauthorized parties from gaining access to the Snowball associated with that job.

Request Syntax

```
{
    "JobId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

JobId (p. 37)

The ID for the job that you want to get the `UnlockCode` value for, for example `JID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

Pattern: `(M|J)ID[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}`

Required: Yes

Response Syntax

```
{
    "UnlockCode": "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.

UnlockCode (p. 37)

The `UnlockCode` value for the specified job. The `UnlockCode` value can be accessed for up to 90 days after the job has been created.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidJobStateException

The action can't be performed because the job's current state doesn't allow that action to be performed.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

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

GetSnowballUsage

Returns information about the Snowball service limit for your account, and also the number of Snowballs your account has in use.

The default service limit for the number of Snowballs that you can have at one time is 1. If you want to increase your service limit, contact AWS Support.

Response Syntax

```
{
    "SnowballLimit": number,
    "SnowballsInUse": number
}
```

Response Elements

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

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

SnowballLimit (p. 39)

The service limit for number of Snowballs this account can have at once. The default service limit is 1 (one).

Type: Integer

SnowballsInUse (p. 39)

The number of Snowballs that this account is currently using.

Type: Integer

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

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

ListClusterJobs

Returns an array of `JobListEntry` objects of the specified length. Each `JobListEntry` object is for a job in the specified cluster and contains a job's state, a job's ID, and other information.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

ClusterId (p. 40)

The 39-character ID for the cluster that you want to list, for example `CID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

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

Required: Yes

MaxResults (p. 40)

The number of `JobListEntry` objects to return.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextToken (p. 40)

HTTP requests are stateless. To identify what object comes "next" in the list of `JobListEntry` objects, you have the option of specifying `NextToken` as the starting point for your returned list.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
```

```
    "JobListEntries": [
        {
            "CreationDate": number,
            "Description": "string",
            "IsMaster": boolean,
            "JobId": "string",
            "JobState": "string",
            "JobType": "string",
            "SnowballType": "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.

JobListEntries (p. 40)

Each `JobListEntry` object contains a job's state, a job's ID, and a value that indicates whether the job is a job part, in the case of export jobs.

Type: Array of JobListEntry (p. 69) objects

NextToken (p. 40)

HTTP requests are stateless. If you use the automatically generated `NextToken` value in your next `ListClusterJobsResult` call, your list of returned jobs will start from this point in the array.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidNextTokenException

The `NextToken` string was altered unexpectedly, and the operation has stopped. Run the operation without changing the `NextToken` string, and try again.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

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

ListClusters

Returns an array of `ClusterListEntry` objects of the specified length. Each `ClusterListEntry` object contains a cluster's state, a cluster's ID, and other important status information.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

MaxResults (p. 43)

The number of `ClusterListEntry` objects to return.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextToken (p. 43)

HTTP requests are stateless. To identify what object comes "next" in the list of `ClusterListEntry` objects, you have the option of specifying `NextToken` as the starting point for your returned list.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
    "ClusterListEntries": [
        {
            "ClusterId": "string",
            "ClusterState": "string",
            "CreationDate": number,
            "Description": "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.

ClusterListEntries (p. 43)

Each `ClusterListEntry` object contains a cluster's state, a cluster's ID, and other important status information.

Type: Array of ClusterListEntry (p. 61) objects

NextToken (p. 43)

HTTP requests are stateless. If you use the automatically generated `NextToken` value in your next `ClusterListEntry` call, your list of returned clusters will start from this point in the array.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidNextTokenException

The `NextToken` string was altered unexpectedly, and the operation has stopped. Run the operation without changing the `NextToken` string, and try again.

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

ListCompatibleImages

This action returns a list of the different Amazon EC2 Amazon Machine Images (AMIs) that are owned by your AWS account that would be supported for use on a Snowball Edge device. Currently, supported AMIs are based on the CentOS 7 (x86_64) - with Updates HVM, Ubuntu Server 14.04 LTS (HVM), and Ubuntu 16.04 LTS - Xenial (HVM) images, available on the AWS Marketplace.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

MaxResults (p. 45)

The maximum number of results for the list of compatible images. Currently, a Snowball Edge device can store 10 AMIs.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextToken (p. 45)

HTTP requests are stateless. To identify what object comes "next" in the list of compatible images, you can specify a value for `NextToken` as the starting point for your list of returned images.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
    "CompatibleImages": [
        {
            "AmiId": "string",
            "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.

CompatibleImages (p. 45)

A JSON-formatted object that describes a compatible AMI, including the ID and name for a Snowball Edge AMI.

Type: Array of CompatibleImage (p. 65) objects

NextToken (p. 45)

Because HTTP requests are stateless, this is the starting point for your next list of returned images.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

Ec2RequestFailedException

Your IAM user lacks the necessary Amazon EC2 permissions to perform the attempted action.

HTTP Status Code: 400

InvalidNextTokenException

The `NextToken` string was altered unexpectedly, and the operation has stopped. Run the operation without changing the `NextToken` string, and try again.

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

ListJobs

Returns an array of `JobListEntry` objects of the specified length. Each `JobListEntry` object contains a job's state, a job's ID, and a value that indicates whether the job is a job part, in the case of export jobs. Calling this API action in one of the US regions will return jobs from the list of all jobs associated with this account in all US regions.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

MaxResults (p. 47)

The number of `JobListEntry` objects to return.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextToken (p. 47)

HTTP requests are stateless. To identify what object comes "next" in the list of `JobListEntry` objects, you have the option of specifying `NextToken` as the starting point for your returned list.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
    "JobListEntries": [
        {
            "CreationDate": number,
            "Description": "string",
            "IsMaster": boolean,
            "JobId": "string",
            "JobState": "string",
            "JobType": "string",
            "SnowballType": "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.

JobListEntries (p. 47)

Each `JobListEntry` object contains a job's state, a job's ID, and a value that indicates whether the job is a job part, in the case of export jobs.

Type: Array of JobListEntry (p. 69) objects

NextToken (p. 47)

HTTP requests are stateless. If you use this automatically generated `NextToken` value in your next `ListJobs` call, your returned `JobListEntry` objects will start from this point in the array.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 86).

InvalidNextTokenException

The `NextToken` string was altered unexpectedly, and the operation has stopped. Run the operation without changing the `NextToken` string, and try again.

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

UpdateCluster

While a cluster's `ClusterState` value is in the `AwaitingQuorum` state, you can update some of the information associated with a cluster. Once the cluster changes to a different job state, usually 60 minutes after the cluster being created, this action is no longer available.

Request Syntax

```
{
    "AddressId": "string",
    "ClusterId": "string",
    "Description": "string",
    "ForwardingAddressId": "string",
    "Notification": {
        "JobStatesToNotify": [ "string" ],
        "NotifyAll": boolean,
        "SnsTopicARN": "string"
    },
    "Resources": {
        "Ec2AmiResources": [
            {
                "AmiId": "string",
                "SnowballAmiId": "string"
            }
        ],
        "LambdaResources": [
            {
                "EventTriggers": [
                    {
                        "EventResourceARN": "string"
                    }
                ],
                "LambdaArn": "string"
            }
        ],
        "S3Resources": [
            {
                "BucketArn": "string",
                "KeyRange": {
                    "BeginMarker": "string",
                    "EndMarker": "string"
                }
            }
        ]
    },
    "RoleARN": "string",
    "ShippingOption": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

AddressId (p. 49)

The ID of the updated Address (p. 58) object.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

ClusterId (p. 49)

The cluster ID of the cluster that you want to update, for example `CID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

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

Required: Yes

Description (p. 49)

The updated description of this cluster.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ForwardingAddressId (p. 49)

This field is not supported in your region.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

Notification (p. 49)

The new or updated Notification (p. 80) object.

Type: Notification (p. 80) object

Required: No

Resources (p. 49)

The updated arrays of JobResource (p. 77) objects that can include updated S3Resource (p. 81) objects or LambdaResource (p. 79) objects.

Type: JobResource (p. 77) object

Required: No

RoleARN (p. 49)

The new role Amazon Resource Name (ARN) that you want to associate with this cluster. To create a role ARN, use the CreateRole API action in AWS Identity and Access Management (IAM).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:iam::[0-9]{12}:role/.*`

Required: No

ShippingOption (p. 49)

The updated shipping option value of this cluster's ShippingDetails (p. 83) object.

Type: String

Valid Values: `SECOND_DAY | NEXT_DAY | EXPRESS | STANDARD`

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. 86).

Ec2RequestFailedException

Your IAM user lacks the necessary Amazon EC2 permissions to perform the attempted action.

HTTP Status Code: 400

InvalidInputCombinationException

Job or cluster creation failed. One ore more inputs were invalid. Confirm that the CreateCluster:SnowballType (p. 16) value supports your CreateJob:JobType (p. 19), and try again.

HTTP Status Code: 400

InvalidJobStateException

The action can't be performed because the job's current state doesn't allow that action to be performed.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

HTTP Status Code: 400

KMSRequestFailedException

The provided AWS Key Management Service key lacks the permissions to perform the specified CreateJob (p. 18) or UpdateJob (p. 53) action.

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

UpdateJob

While a job's `JobState` value is `New`, you can update some of the information associated with a job. Once the job changes to a different job state, usually within 60 minutes of the job being created, this action is no longer available.

Request Syntax

```
{
   "AddressId": "string",
   "Description": "string",
   "ForwardingAddressId": "string",
   "JobId": "string",
   "Notification": {
      "JobStatesToNotify": [ "string" ],
      "NotifyAll": boolean,
      "SnsTopicARN": "string"
   },
   "Resources": {
      "Ec2AmiResources": [
         {
            "AmiId": "string",
            "SnowballAmiId": "string"
         }
      ],
      "LambdaResources": [
         {
            "EventTriggers": [
               {
                  "EventResourceARN": "string"
               }
            ],
            "LambdaArn": "string"
         }
      ],
      "S3Resources": [
         {
            "BucketArn": "string",
            "KeyRange": {
               "BeginMarker": "string",
               "EndMarker": "string"
            }
         }
      ]
   },
   "RoleARN": "string",
   "ShippingOption": "string",
   "SnowballCapacityPreference": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 84).

The request accepts the following data in JSON format.

AddressId (p. 53)

The ID of the updated Address (p. 58) object.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

Description (p. 53)

The updated description of this job's JobMetadata (p. 73) object.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ForwardingAddressId (p. 53)

This field is not supported in your region.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

JobId (p. 53)

The job ID of the job that you want to update, for example `JID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Fixed length of 39.

Pattern: `(M|J)ID[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}`

Required: Yes

Notification (p. 53)

The new or updated Notification (p. 80) object.

Type: Notification (p. 80) object

Required: No

Resources (p. 53)

The updated `JobResource` object, or the updated JobResource (p. 77) object.

Type: JobResource (p. 77) object

Required: No

RoleARN (p. 53)

The new role Amazon Resource Name (ARN) that you want to associate with this job. To create a role ARN, use the CreateRoleAWS Identity and Access Management (IAM) API action.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:iam::[0-9]{12}:role/.*`

Required: No

ShippingOption (p. 53)

The updated shipping option value of this job's ShippingDetails (p. 83) object.

Type: String

Valid Values: `SECOND_DAY | NEXT_DAY | EXPRESS | STANDARD`

Required: No

SnowballCapacityPreference (p. 53)

The updated `SnowballCapacityPreference` of this job's JobMetadata (p. 73) object. The 50 TB Snowballs are only available in the US regions.

Type: String

Valid Values: `T50 | T80 | T100 | NoPreference`

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. 86).

ClusterLimitExceededException

Job creation failed. Currently, clusters support five nodes. If you have less than five nodes for your cluster and you have more nodes to create for this cluster, try again and create jobs until your cluster has exactly five notes.

HTTP Status Code: 400

Ec2RequestFailedException

Your IAM user lacks the necessary Amazon EC2 permissions to perform the attempted action.

HTTP Status Code: 400

InvalidInputCombinationException

Job or cluster creation failed. One ore more inputs were invalid. Confirm that the CreateCluster:SnowballType (p. 16) value supports your CreateJob:JobType (p. 19), and try again.

HTTP Status Code: 400

InvalidJobStateException

The action can't be performed because the job's current state doesn't allow that action to be performed.

HTTP Status Code: 400

InvalidResourceException

The specified resource can't be found. Check the information you provided in your last request, and try again.

HTTP Status Code: 400

KMSRequestFailedException

The provided AWS Key Management Service key lacks the permissions to perform the specified CreateJob (p. 18) or UpdateJob (p. 53) action.

HTTP Status Code: 400

See Also

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

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

Data Types

The Amazon Import/Export Snowball 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:

Address

The address that you want the Snowball or Snowballs associated with a specific job to be shipped to. Addresses are validated at the time of creation. The address you provide must be located within the serviceable area of your region. Although no individual elements of the `Address` are required, if the address is invalid or unsupported, then an exception is thrown.

Contents

AddressId

The unique ID for an address.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

City

The city in an address that a Snowball is to be delivered to.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Company

The name of the company to receive a Snowball at an address.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Country

The country in an address that a Snowball is to be delivered to.

Type: String

Length Constraints: Minimum length of 1.

Required: No

IsRestricted

This field is not supported in your region.

Type: Boolean

Required: No

Landmark

This field is no longer used and the value is ignored.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Name

The name of a person to receive a Snowball at an address.

Type: String

Length Constraints: Minimum length of 1.

Required: No

PhoneNumber

The phone number associated with an address that a Snowball is to be delivered to.

Type: String

Length Constraints: Minimum length of 1.

Required: No

PostalCode

The postal code in an address that a Snowball is to be delivered to.

Type: String

Length Constraints: Minimum length of 1.

Required: No

PrefectureOrDistrict

This field is no longer used and the value is ignored.

Type: String

Length Constraints: Minimum length of 1.

Required: No

StateOrProvince

The state or province in an address that a Snowball is to be delivered to.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Street1

The first line in a street address that a Snowball is to be delivered to.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Street2

The second line in a street address that a Snowball is to be delivered to.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Street3

The third line in a street address that a Snowball is to be delivered to.

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

ClusterListEntry

Contains a cluster's state, a cluster's ID, and other important information.

Contents

ClusterId

The 39-character ID for the cluster that you want to list, for example `CID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ClusterState

The current state of this cluster. For information about the state of a specific node, see JobListEntry:JobState (p. 69).

Type: String

Valid Values: `AwaitingQuorum | Pending | InUse | Complete | Cancelled`

Required: No

CreationDate

The creation date for this cluster.

Type: Timestamp

Required: No

Description

Defines an optional description of the cluster, for example `Environmental Data Cluster-01`.

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

ClusterMetadata

Contains metadata about a specific cluster.

Contents

AddressId

The automatically generated ID for a specific address.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

ClusterId

The automatically generated ID for a cluster.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ClusterState

The current status of the cluster.

Type: String

Valid Values: `AwaitingQuorum | Pending | InUse | Complete | Cancelled`

Required: No

CreationDate

The creation date for this cluster.

Type: Timestamp

Required: No

Description

The optional description of the cluster.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ForwardingAddressId

This field is not supported in your region.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

JobType

The type of job for this cluster. Currently, the only job type supported for clusters is `LOCAL_USE`.

Type: String

Valid Values: `IMPORT | EXPORT | LOCAL_USE`

Required: No

KmsKeyARN

The `KmsKeyARN` Amazon Resource Name (ARN) associated with this cluster. This ARN was created using the CreateKey API action in AWS Key Management Service (AWS KMS).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:kms:.*:[0-9]{12}:key/.*`

Required: No

Notification

The Amazon Simple Notification Service (Amazon SNS) notification settings for this cluster.

Type: Notification (p. 80) object

Required: No

Resources

The arrays of JobResource (p. 77) objects that can include updated S3Resource (p. 81) objects or LambdaResource (p. 79) objects.

Type: JobResource (p. 77) object

Required: No

RoleARN

The role ARN associated with this cluster. This ARN was created using the CreateRole API action in AWS Identity and Access Management (IAM).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:iam::[0-9]{12}:role/.*`

Required: No

ShippingOption

The shipping speed for each node in this cluster. This speed doesn't dictate how soon you'll get each Snowball Edge device, rather it represents how quickly each device moves to its destination while in transit. Regional shipping speeds are as follows:

- In Australia, you have access to express shipping. Typically, devices shipped express are delivered in about a day.

- In the European Union (EU), you have access to express shipping. Typically, Snowball Edges shipped express are delivered in about a day. In addition, most countries in the EU have access to standard shipping, which typically takes less than a week, one way.
- In India, Snowball Edges are delivered in one to seven days.
- In the US, you have access to one-day shipping and two-day shipping.

Type: String

Valid Values: `SECOND_DAY | NEXT_DAY | EXPRESS | STANDARD`

Required: No

SnowballType

The type of AWS Snowball device to use for this cluster. Currently, the only supported device type for cluster jobs is `EDGE`.

Type: String

Valid Values: `STANDARD | EDGE`

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

CompatibleImage

A JSON-formatted object that describes a compatible Amazon Machine Image (AMI), including the ID and name for a Snowball Edge AMI. This AMI is compatible with the device's physical hardware requirements, and it should be able to be run in an SBE1 instance on the device.

Contents

AmiId

The unique identifier for an individual Snowball Edge AMI.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Name

The optional name of a compatible image.

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

DataTransfer

Defines the real-time status of a Snowball's data transfer while the device is at AWS. This data is only available while a job has a `JobState` value of `InProgress`, for both import and export jobs.

Contents

BytesTransferred

The number of bytes transferred between a Snowball and Amazon S3.

Type: Long

Required: No

ObjectsTransferred

The number of objects transferred between a Snowball and Amazon S3.

Type: Long

Required: No

TotalBytes

The total bytes of data for a transfer between a Snowball and Amazon S3. This value is set to 0 (zero) until all the keys that will be transferred have been listed.

Type: Long

Required: No

TotalObjects

The total number of objects for a transfer between a Snowball and Amazon S3. This value is set to 0 (zero) until all the keys that will be transferred have been listed.

Type: Long

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

Ec2AmiResource

A JSON-formatted object that contains the IDs for an Amazon Machine Image (AMI), including the Amazon EC2 AMI ID and the Snowball Edge AMI ID. Each AMI has these two IDs to simplify identifying the AMI in both the AWS Cloud and on the device.

Contents

AmiId

The ID of the AMI in Amazon EC2.

Type: String

Length Constraints: Minimum length of 12. Maximum length of 21.

Pattern: `(ami-[0-9a-f]{8})|(ami-[0-9a-f]{17})`

Required: Yes

SnowballAmiId

The ID of the AMI on the Snowball Edge device.

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

EventTriggerDefinition

The container for the EventTriggerDefinition:EventResourceARN (p. 68).

Contents

EventResourceARN

The Amazon Resource Name (ARN) for any local Amazon S3 resource that is an AWS Lambda function's event trigger associated with this job.

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

JobListEntry

Each `JobListEntry` object contains a job's state, a job's ID, and a value that indicates whether the job is a job part, in the case of an export job.

Contents

CreationDate

The creation date for this job.

Type: Timestamp

Required: No

Description

The optional description of this specific job, for example `Important Photos 2016-08-11`.

Type: String

Length Constraints: Minimum length of 1.

Required: No

IsMaster

A value that indicates that this job is a master job. A master job represents a successful request to create an export job. Master jobs aren't associated with any Snowballs. Instead, each master job will have at least one job part, and each job part is associated with a Snowball. It might take some time before the job parts associated with a particular master job are listed, because they are created after the master job is created.

Type: Boolean

Required: No

JobId

The automatically generated ID for a job, for example `JID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Minimum length of 1.

Required: No

JobState

The current state of this job.

Type: String

Valid Values: `New | PreparingAppliance | PreparingShipment | InTransitToCustomer | WithCustomer | InTransitToAWS | WithAWSSortingFacility | WithAWS | InProgress | Complete | Cancelled | Listing | Pending`

Required: No

JobType

The type of job.

Type: String

Valid Values: `IMPORT | EXPORT | LOCAL_USE`

Required: No

SnowballType

The type of device used with this job.

Type: String

Valid Values: `STANDARD | EDGE`

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

JobLogs

Contains job logs. Whenever Snowball is used to import data into or export data out of Amazon S3, you'll have the option of downloading a PDF job report. Job logs are returned as a part of the response syntax of the `DescribeJob` action in the `JobMetadata` data type. The job logs can be accessed for up to 60 minutes after this request has been made. To access any of the job logs after 60 minutes have passed, you'll have to make another call to the `DescribeJob` action.

For import jobs, the PDF job report becomes available at the end of the import process. For export jobs, your job report typically becomes available while the Snowball for your job part is being delivered to you.

The job report provides you insight into the state of your Amazon S3 data transfer. The report includes details about your job or job part for your records.

For deeper visibility into the status of your transferred objects, you can look at the two associated logs: a success log and a failure log. The logs are saved in comma-separated value (CSV) format, and the name of each log includes the ID of the job or job part that the log describes.

Contents

JobCompletionReportURI

A link to an Amazon S3 presigned URL where the job completion report is located.

Type: String

Length Constraints: Minimum length of 1.

Required: No

JobFailureLogURI

A link to an Amazon S3 presigned URL where the job failure log is located.

Type: String

Length Constraints: Minimum length of 1.

Required: No

JobSuccessLogURI

A link to an Amazon S3 presigned URL where the job success log is located.

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

JobMetadata

Contains information about a specific job including shipping information, job status, and other important metadata. This information is returned as a part of the response syntax of the `DescribeJob` action.

Contents

AddressId

The ID for the address that you want the Snowball shipped to.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

ClusterId

The 39-character ID for the cluster, for example `CID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Minimum length of 1.

Required: No

CreationDate

The creation date for this job.

Type: Timestamp

Required: No

DataTransferProgress

A value that defines the real-time status of a Snowball's data transfer while the device is at AWS. This data is only available while a job has a `JobState` value of `InProgress`, for both import and export jobs.

Type: DataTransfer (p. 66) object

Required: No

Description

The description of the job, provided at job creation.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ForwardingAddressId

This field is not supported in your region.

Type: String

Length Constraints: Fixed length of 40.

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

Required: No

JobId

The automatically generated ID for a job, for example `JID123e4567-e89b-12d3-a456-426655440000`.

Type: String

Length Constraints: Minimum length of 1.

Required: No

JobLogInfo

Links to Amazon S3 presigned URLs for the job report and logs. For import jobs, the PDF job report becomes available at the end of the import process. For export jobs, your job report typically becomes available while the Snowball for your job part is being delivered to you.

Type: JobLogs (p. 71) object

Required: No

JobState

The current status of the jobs.

Type: String

Valid Values: `New | PreparingAppliance | PreparingShipment | InTransitToCustomer | WithCustomer | InTransitToAWS | WithAWSSortingFacility | WithAWS | InProgress | Complete | Cancelled | Listing | Pending`

Required: No

JobType

The type of job.

Type: String

Valid Values: `IMPORT | EXPORT | LOCAL_USE`

Required: No

KmsKeyARN

The Amazon Resource Name (ARN) for the AWS Key Management Service (AWS KMS) key associated with this job. This ARN was created using the CreateKey API action in AWS KMS.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:kms:.*:[0-9]{12}:key/.*`

Required: No

Notification

The Amazon Simple Notification Service (Amazon SNS) notification settings associated with a specific job. The `Notification` object is returned as a part of the response syntax of the `DescribeJob` action in the `JobMetadata` data type.

Type: Notification (p. 80) object

Required: No

Resources

An array of `S3Resource` objects. Each `S3Resource` object represents an Amazon S3 bucket that your transferred data will be exported from or imported into.

Type: JobResource (p. 77) object

Required: No

RoleARN

The role ARN associated with this job. This ARN was created using the CreateRole API action in AWS Identity and Access Management (IAM).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:iam::[0-9]{12}:role/.*`

Required: No

ShippingDetails

A job's shipping information, including inbound and outbound tracking numbers and shipping speed options.

Type: ShippingDetails (p. 83) object

Required: No

SnowballCapacityPreference

The Snowball capacity preference for this job, specified at job creation. In US regions, you can choose between 50 TB and 80 TB Snowballs. All other regions use 80 TB capacity Snowballs.

Type: String

Valid Values: `T50 | T80 | T100 | NoPreference`

Required: No

SnowballType

The type of device used with this job.

Type: String

Valid Values: `STANDARD | EDGE`

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

JobResource

Contains an array of AWS resource objects. Each object represents an Amazon S3 bucket, an AWS Lambda function, or an Amazon Machine Image (AMI) based on Amazon EC2 that is associated with a particular job.

Contents

Ec2AmiResources

The Amazon Machine Images (AMIs) associated with this job.

Type: Array of Ec2AmiResource (p. 67) objects

Required: No

LambdaResources

The Python-language Lambda functions for this job.

Type: Array of LambdaResource (p. 79) objects

Required: No

S3Resources

An array of `S3Resource` objects.

Type: Array of S3Resource (p. 81) objects

Required: No

See Also

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

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

KeyRange

Contains a key range. For export jobs, a `S3Resource` object can have an optional `KeyRange` value. The length of the range is defined at job creation, and has either an inclusive `BeginMarker`, an inclusive `EndMarker`, or both. Ranges are UTF-8 binary sorted.

Contents

BeginMarker

The key that starts an optional key range for an export job. Ranges are inclusive and UTF-8 binary sorted.

Type: String

Length Constraints: Minimum length of 1.

Required: No

EndMarker

The key that ends an optional key range for an export job. Ranges are inclusive and UTF-8 binary sorted.

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

LambdaResource

Identifies

Contents

EventTriggers

The array of ARNs for S3Resource (p. 81) objects to trigger the LambdaResource (p. 79) objects associated with this job.

Type: Array of EventTriggerDefinition (p. 68) objects

Required: No

LambdaArn

An Amazon Resource Name (ARN) that represents an AWS Lambda function to be triggered by PUT object actions on the associated local Amazon S3 resource.

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

Notification

The Amazon Simple Notification Service (Amazon SNS) notification settings associated with a specific job. The `Notification` object is returned as a part of the response syntax of the `DescribeJob` action in the `JobMetadata` data type.

When the notification settings are defined during job creation, you can choose to notify based on a specific set of job states using the `JobStatesToNotify` array of strings, or you can specify that you want to have Amazon SNS notifications sent out for all job states with `NotifyAll` set to true.

Contents

JobStatesToNotify

The list of job states that will trigger a notification for this job.

Type: Array of strings

Valid Values: `New | PreparingAppliance | PreparingShipment | InTransitToCustomer | WithCustomer | InTransitToAWS | WithAWSSortingFacility | WithAWS | InProgress | Complete | Cancelled | Listing | Pending`

Required: No

NotifyAll

Any change in job state will trigger a notification for this job.

Type: Boolean

Required: No

SnsTopicARN

The new SNS `TopicArn` that you want to associate with this job. You can create Amazon Resource Names (ARNs) for topics by using the CreateTopic Amazon SNS API action.

You can subscribe email addresses to an Amazon SNS topic through the AWS Management Console, or by using the Subscribe AWS Simple Notification Service (SNS) API action.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `arn:aws.*:sns:.*:[0-9]{12}:.*`

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

S3Resource

Each `S3Resource` object represents an Amazon S3 bucket that your transferred data will be exported from or imported into. For export jobs, this object can have an optional `KeyRange` value. The length of the range is defined at job creation, and has either an inclusive `BeginMarker`, an inclusive `EndMarker`, or both. Ranges are UTF-8 binary sorted.

Contents

BucketArn

The Amazon Resource Name (ARN) of an Amazon S3 bucket.

Type: String

Length Constraints: Maximum length of 255.

Required: No

KeyRange

For export jobs, you can provide an optional `KeyRange` within a specific Amazon S3 bucket. The length of the range is defined at job creation, and has either an inclusive `BeginMarker`, an inclusive `EndMarker`, or both. Ranges are UTF-8 binary sorted.

Type: KeyRange (p. 78) 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

Shipment

The `Status` and `TrackingNumber` information for an inbound or outbound shipment.

Contents

Status

Status information for a shipment.

Type: String

Length Constraints: Minimum length of 1.

Required: No

TrackingNumber

The tracking number for this job. Using this tracking number with your region's carrier's website, you can track a Snowball as the carrier transports it.

For India, the carrier is Amazon Logistics. For all other regions, UPS is the carrier.

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

ShippingDetails

A job's shipping information, including inbound and outbound tracking numbers and shipping speed options.

Contents

InboundShipment

The `Status` and `TrackingNumber` values for a Snowball being returned to AWS for a particular job.

Type: Shipment (p. 82) object

Required: No

OutboundShipment

The `Status` and `TrackingNumber` values for a Snowball being delivered to the address that you specified for a particular job.

Type: Shipment (p. 82) object

Required: No

ShippingOption

The shipping speed for a particular job. This speed doesn't dictate how soon you'll get the Snowball from the job's creation date. This speed represents how quickly it moves to its destination while in transit. Regional shipping speeds are as follows:

- In Australia, you have access to express shipping. Typically, Snowballs shipped express are delivered in about a day.
- In the European Union (EU), you have access to express shipping. Typically, Snowballs shipped express are delivered in about a day. In addition, most countries in the EU have access to standard shipping, which typically takes less than a week, one way.
- In India, Snowballs are delivered in one to seven days.
- In the United States of America (US), you have access to one-day shipping and two-day shipping.

Type: String

Valid Values: `SECOND_DAY | NEXT_DAY | EXPRESS | STANDARD`

Required: No

See Also

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

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

Common Parameters

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

Action

The action to be performed.

Type: string

Required: Yes

Version

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

Type: string

Required: Yes

X-Amz-Algorithm

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

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

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

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

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

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

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'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 (AWS STS). For a list of services that support temporary security credentials from AWS Security Token Service, go to AWS Services That Work with IAM in the *IAM User Guide*.

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

Type: string

Required: Conditional

X-Amz-Signature

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

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

Type: string

Required: Conditional

X-Amz-SignedHeaders

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

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

Type: string

Required: Conditional

Common Errors

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

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

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

HTTP Status Code: 500

InvalidAction

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

HTTP Status Code: 400

InvalidClientTokenId

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

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

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

HTTP Status Code: 400

InvalidQueryParameter

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

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

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

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

OptInRequired

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

HTTP Status Code: 403

RequestExpired

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

HTTP Status Code: 400

ServiceUnavailable

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

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

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

HTTP Status Code: 400