

Welcome

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This is the *Amazon Elastic Compute Cloud API Reference Guide*. This section describes who should read this guide, how the guide is organized, and other resources related to Amazon Elastic Compute Cloud.

The Amazon Elastic Compute Cloud is occasionally referred to within this guide as simply "Amazon EC2"; all copyrights and legal protections still apply.

Who Should Read This Guide

This guide is for programmers that need detailed information about the Amazon EC2 SOAP and Query APIs.

Required Knowledge and Skills

Use of this guide assumes you are familiar with the following:

- XML (For an overview, go to the [W3 Schools XML Tutorial](#))
- Basic understanding of web services (go to [W3 Schools Web Services Tutorial](#))
- Query or SOAP
- One or more programming languages

You should also have worked through the [Amazon Elastic Compute Cloud Getting Started Guide](#), set up your development environment, and have a general understanding of the service. Additionally, you should refer to the [Amazon Elastic Compute Cloud Developer Guide](#) for high level concepts and examples of how to use

major Amazon EC2 features.

Reader Feedback

The online version of this guide provides a link at the top of each page that enables you to enter feedback about this guide. We strive to make our guides as complete, error free, and easy to read as possible. You can help by giving us feedback. Thank you in advance!



How This Guide Is Organized

This guide is organized into several major sections described in the following table.

Information	Relevant Sections
Overview of the APIs and conventions.	API Overview
Comprehensive reference to the SOAP APIs.	Amazon EC2 SOAP API
Comprehensive reference to the Query APIs.	Amazon EC2 Query API
Comprehensive reference to the SOAP data types.	Data Types
Error code information.	API Error Codes
Amazon EC2 terms.	Glossary
Typographic and symbol conventions.	Document Conventions

Amazon EC2 Resources

The following table lists related resources that you'll find useful as you work with this service.

Resource	Description
Amazon Elastic Compute Cloud Getting Started Guide	The Getting Started Guide provides a quick tutorial of the service based on a simple use case. Examples and instructions are included.
Amazon Elastic Compute Cloud User Guide	The Console and Command Line User Guide provides conceptual information about Amazon EC2 and describes how to use Amazon EC2 features using the AWS Management Console and command line tools.
Amazon Elastic Compute Cloud Developer Guide	The Developer Guide provides conceptual information about Amazon EC2 and describes how to use Amazon EC2 features using the SOAP and Query APIs.
Amazon Elastic Compute Cloud Command Line Reference	The Command Line Tools Reference contains a comprehensive description of all the command line tools and their options.
Amazon EC2 Technical FAQ	The FAQ covers the top questions developers have asked about this product.
Amazon EC2 Release Notes	The Release Notes give a high-level overview of the current release. They specifically note any new features, corrections, and known issues.
AWS Developer Resource Center	A central starting point to find documentation, code samples, release notes, and other information to help you build innovative applications with AWS.
AWS Management Console	The console allows you to perform most of the functions of Amazon EC2 and other AWS products without programming.
Discussion Forums	A community-based forum for developers to discuss technical questions related to Amazon Web Services.
AWS Support Center	The home page for AWS Technical Support, including access to our Developer Forums, Technical FAQs, Service Status page, and AWS Premium Support (if you are subscribed to this program).
AWS Premium Support Information	The primary web page for information about AWS Premium Support, a one-on-one, fast-response support channel to help you build and run applications on AWS Infrastructure Services.

<u>Amazon EC2 Product Information</u>	The primary web page for information about Amazon EC2.
Form for questions related to your AWS account: <u>Contact Us</u>	This form is <i>only</i> for account questions. For technical questions, use the Discussion Forums.
<u>Conditions of Use</u>	Detailed information about the copyright and trademark usage at Amazon.com and other topics.

What's New

This What's New is associated with the 2009-08-15 release of Amazon EC2. This guide was last updated on November 10, 2009.

The following table describes the important changes since the last release of the Amazon EC2 documentation set.

Change	Description	Release Date
High-Memory Instance Types	Amazon EC2 now supports High-Memory instance types. Instances of this family offer large memory sizes for high throughput applications, including database and memory caching applications.	26 October 2009
Consolidation of Windows AMIs	Amazon EC2 no longer differentiates between Amazon EC2 running Windows and Amazon EC2 running Windows with Authentication Services. New and existing Windows instances can now run Authentication Services, such as LDAP and Kerberos, at no additional charge. Additionally, any currently running Windows with Authentication Services instances are now charged the same price as Windows instances. Existing Windows AMIs will be removed starting October 15. If you need the current version of a Windows AMI, please rebundle it as described in the Amazon Elastic Compute Cloud Developer Guide .	1 October 2009
Shared Snapshots	Amazon EC2 now supports shared snapshots, which enables users to launch Amazon EBS volumes from your snapshots. Using shared snapshots, you can grant access to specific users or make your snapshots public.	15 September 2009

API Overview

Topics

- [API Actions](#)
- [Data Types and the Amazon EC2 WSDL](#)
- [API Versioning](#)
- [Available Libraries](#)

Amazon EC2 provides two APIs: SOAP and Query.

This section discusses the operations available in the Amazon EC2 APIs, their semantics, and their required parameters. Examples of requests and responses are also provided.



Note

The same XML body is returned in both the Query API and SOAP API.

For detailed information about Amazon EC2 features and their associated APIs, refer to the [Amazon Elastic Compute Cloud Developer Guide](#).

API Actions

Actions encapsulate the possible interactions with Amazon EC2. These can be viewed as remote procedure calls and consist of a request and response message pair. Requests must be signed, allowing Amazon EC2 to authenticate them. For clarity, the sample requests and responses illustrating each of the operations described in this reference are not signed.

Data Types and the Amazon EC2 WSDL

The current version of the Amazon EC2 WSDL is available at: <http://ec2.amazonaws.com/doc/2009-08-15/AmazonEC2.wsdl>. Some libraries can generate code directly from the WSDL. Other libraries require a little more work on your part.

Values provided as parameters to the various operations must be of the indicated type. Standard XSD types (like `string`, `boolean`, `int`) are prefixed with `xsd:`. Complex types defined by the Amazon EC2 WSDL are prefixed with `ec2:`.

Parameters that consist of lists of information are defined within our WSDL to require `<info>` tags around each member. Throughout the API, type references for parameters that accept such a list of values are specified using the notation `type[]` The type referred to in these instances is the type *nested within the `<info>` tag* (for Amazon EC2 types this is defined in the WSDL).

For example, the `<imagesSet>` element in the following XML snippet is of type `xsd:string[]`.

```
<imagesSet>
  <item>
    <imageId>ami-61a54008</imageId>
  </item>
  <item>
    <imageId>ami-61b54608</imageId>
  </item>
</imagesSet>
```

The `<instancesSet>` element in the following XML snippet is of type `xsd:string[]`.

```
<instancesSet>
  <item>
    <imageId>ami-60a54009</imageId>
    <minCount>10</minCount>
    <maxCount>30</maxCount>
  </item>
  <item>
    <imageId>ami-60b54209</imageId>
    <minCount>5</minCount>
    <maxCount>20</maxCount>
  </item>
</instancesSet>
```

API Versioning

Because features and changes can introduce incompatible API changes, all Amazon EC2 API updates are versioned. By including a version in the request, clients receive responses they can process.

Each API revision is assigned a version in date form (the current API version is 2009-08-15). This version is included in the request as part of the document namespace when using our SOAP API and as a `Version` parameter when using our Query API. The response that Amazon EC2 returns honors the version included in the request.

SOAP clients that retrieve the Amazon EC2 WSDL at runtime and generate their requests dynamically using that WSDL should reference the WSDL for the version of the API that the client was developed against. This ensures that the client software continues to work even if backward incompatible API changes are introduced. The WSDL for each supported API version is available from the following URI:

`http://ec2.amazonaws.com/doc/<api-version>/AmazonEC2.wsdl`

The WSDL for latest version of our API is available from the following URI:

<http://ec2.amazonaws.com/doc/2009-08-15/AmazonEC2.wsdl>



Note

The WSDL should be treated as a moving target as it will always map to the latest release of the Amazon EC2 SOAP API. If your software depends on retrieving the WSDL at runtime, we strongly recommend you reference the specific version of the WSDL you are developing against.

Available Libraries

AWS provides libraries, sample code, tutorials, and other resources for software developers who prefer to build applications using language-specific APIs instead of SOAP and Query. These libraries provide basic functions (not included in the APIs), such as request authentication, request retries, and error handling so that it is easier to get started. Libraries and resources are available for the following languages:

- [Java](#)
- [PHP](#)
- [Ruby](#)
- [Windows and .NET](#)

For libraries and sample code in all languages, go to [Sample Code & Libraries](#).

Amazon EC2 Query API

Topics

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- [List of Query Operations by Function](#)
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- [DescribeImages](#)
- [DescribeInstances](#)
- [DescribeKeyPairs](#)
- [DescribeRegions](#)
- [DescribeReservedInstances](#)
- [DescribeReservedInstancesOfferings](#)
- [DescribeSecurityGroups](#)
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- [DisassociateAddress](#)
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- [MonitorInstances](#)
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- [RegisterImage](#)
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- [ResetImageAttribute](#)
- [ResetSnapshotAttribute](#)
- [RevokeSecurityGroupIngress](#)
- [RunInstances](#)
- [TerminateInstances](#)
- [UnmonitorInstances](#)

Common Query Parameters

All Query operations share a set of common parameters that must be present in each call.

Name	Description	Required
<i>Action</i>	Indicates the action to perform. Example: RunInstances	Yes
<i>Version</i>	The API version to use, as specified in the WSDL. Example: 2009-08-15	Yes
<i>AWSAccessKeyId</i>	The Access Key ID for the request sender. This identifies the account which will be charged for usage of the service. The account with which the Access Key ID is associated must be signed up for Amazon EC2, or requests will not be accepted. AKIADQKE4SARGYLE	Yes
<i>Timestamp</i>	The date and time at which the request is signed, in the format YYYY-MM-DDThh:mm:ssZ. For more information, go to ISO 8601 . Example: 2006-07-07T15:04:56Z	Yes
<i>Expires</i>	The date and time at which the signature included in the request expires, in the format YYYY-MM-DDThh:mm:ssZ. Example: 2006-07-07T15:04:56Z	Yes
<i>Signature</i>	The request signature. For more information, go to the Amazon Elastic Compute Cloud Developer Guide . Example: Qnp14Qk/7tINHzfXciT7VbBatDA=	Yes
<i>SignatureMethod</i>	The hash algorithm you use to create the request signature. Valid values: HmacSHA256 HmacSHA1. For more information, go to the Amazon Elastic Compute Cloud Developer Guide .	Yes

	Example: HmacSHA256	
<i>SignatureVersion</i>	The signature version you use to sign the request. Set this value to 2. For more information, go to the Amazon Elastic Compute Cloud Developer Guide . Example: 2	Yes

**Note**

The *Timestamp* parameter can be used instead of *Expires*. Requests must include either *Timestamp* or *Expires*, but cannot contain both.

Parameter values must be URL-encoded. This is true for any Query parameter passed to Amazon EC2 and is typically necessary in the *signature* parameter. Some clients do this automatically, but this is not the norm.

List of Query Operations by Function

Amazon DevPay

-

[ConfirmProductInstance](#)

AMIs

- [DeregisterImage](#)
- [DescribeImageAttribute](#)
- [DescribeImages](#)
- [ModifyImageAttribute](#)

Availability Zones and Regions

- [DescribeAvailabilityZones](#)
- [DescribeRegions](#)

Elastic Block Store

- [AttachVolume](#)
- [CreateSnapshot](#)
- [CreateVolume](#)
- [DeleteSnapshot](#)
- [DeleteVolume](#)
- [DescribeSnapshotAttribute](#)
- [DescribeSnapshots](#)
- [DescribeVolumes](#)
- [DetachVolume](#)
- [ModifySnapshotAttribute](#)
- [ResetSnapshotAttribute](#)

Elastic IP Addresses

- [AllocateAddress](#)
- [AssociateAddress](#)
- [DescribeAddresses](#)

- [DisassociateAddress](#)
- [ReleaseAddress](#)

General

- [GetConsoleOutput](#)

Images

- [RegisterImage](#)
- [ResetImageAttribute](#)

Instances

- [DescribeInstances](#)
- [RebootInstances](#)
- [RunInstances](#)
- [TerminateInstances](#)

Key Pairs

- [CreateKeyPair](#)
- [DeleteKeyPair](#)

- [DescribeKeyPairs](#)

Monitoring

- [MonitorInstances](#)
- [UnmonitorInstances](#)

Reserved Instances

- [DescribeReservedInstances](#)
- [DescribeReservedInstancesOfferings](#)
- [PurchaseReservedInstancesOffering](#)

Security Groups

- [AuthorizeSecurityGroupIngress](#)
- [CreateSecurityGroup](#)
- [DeleteSecurityGroup](#)
- [DescribeSecurityGroups](#)
- [RevokeSecurityGroupIngress](#)

Windows

- [BundleInstance](#)
- [CancelBundleTask](#)
- [DescribeBundleTasks](#)
- [GetPasswordData](#)

AllocateAddress

Description

Acquires an elastic IP address for use with your account.

Request Parameters

The AllocateAddress operation does not have any request parameters.

Response Elements

Name	Description
AllocateAddressResponseType	AllocateAddressResponseType element. Type:

AllocateAddressResponseType

Ancestor: None

Children: requestId, publicIp

requestId

The ID of the request.

Type: xsd:string

Ancestor: AllocateAddressResponseType

Children: None

publicIp

IP address for use with your account.

Type: xsd:string

Ancestor: AllocateAddressResponseType

Children: None

Examples

Example Request

This example returns an elastic IP address for use with the account.

```
https://ec2.amazonaws.com/?Action=AllocateAddress&Auth
```

Example Response

```
<AllocateAddressResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <publicIp>67.202.55.255</publicIp>
</AllocateAddressResponse>
```

Related Operations

- [DescribeAddresses](#)
- [ReleaseAddress](#)
- [AssociateAddress](#)
- [DisassociateAddress](#)

AssociateAddress

Description

Associates an elastic IP address with an instance. If the IP address is currently assigned to another instance, the IP address is assigned to the new instance. This is an idempotent operation. If you enter it more than once, Amazon EC2 does not return an error.

Request Parameters

Name	Description	Required
<i>PublicIp</i>	IP address that you are assigning to the instance. Type: String Default: None	Yes
<i>InstanceId</i>	The instance to associate with the IP address. Type: String Default: None	Yes

Response Elements

Name	Description
AssociateAddressResponseType	AssociateAddressResponseType element. Type:

AssociateAddressResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: AssociateAddressResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: AssociateAddressResponseType

Children: None

Examples

Example Request

This example associates an IP address with an instance.

```
https://ec2.amazonaws.com/?Action=AssociateAddress  
    &Insta  
    &Publi  
    &AuthF
```

Example Response

```
<AssociateAddressResponse xmlns="http://ec2.amazonaws.  
    <return>true</return>  
</AssociateAddressResponse>
```

Related Operations

- [AllocateAddress](#)
- [DescribeAddresses](#)
- [ReleaseAddress](#)
- [DisassociateAddress](#)

AttachVolume

Description

Attaches an Amazon EBS volume to a running instance and exposes it as the specified device.



Note

Windows instances currently support devices xvda through xvdp. Devices xvda and xvdb are reserved by the operating system, xvdc is assigned to drive C:\, and, depending on the instance type, devices xvdd through xvde might be reserved by the instance stores. Any device that is not reserved can be attached to an Amazon EBS volume. For a list of devices that are reserved by the instance stores, go to the

[Amazon Elastic Compute Cloud Developer Guide](#).

Request Parameters

Name	Description	Required
<i>VolumeId</i>	The ID of the Amazon EBS volume. The volume and instance must be within the same Availability Zone and the instance must be running. Type: String Default: None	Yes
<i>InstanceId</i>	The ID of the instance to which the volume attaches. The volume and instance must be within the same Availability Zone and the instance must be running. Type: String Default: None	Yes
<i>Device</i>	Specifies how the device is exposed to the instance (e.g., /dev/sdh). Type: String Default: None	Yes

Response Elements

Name	Description
AttachVolumeResponseType	<p>AttachVolumeResponseType element.</p> <p>Type: AttachVolumeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, volumeId, instanceId, device, status, and attachTime</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>
device	<p>The device as it is exposed to the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>
status	<p>Volume state (e.g.,</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p>

	Children: None
attachTime	<p>Time stamp when the attachment was initiated.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>

Examples

Example Request

This example attaches volume vol-4d826724 to instance i-6058a509 and exposes it as /dev/sdh. For information on standard storage locations, go to the [Amazon Elastic Compute Cloud Developer Guide](#).

```
https://ec2.amazonaws.com/?Action=AttachVolume&VolumeId=vol-4d826724&InstanceId=i-6058a509&Device=/dev/sdh&AuthParams
```

Example Response

```
<AttachVolumeResponse xmlns="http://ec2.amazonaws.com">
  <volumeId>vol-4d826724</volumeId>
  <instanceId>i-6058a509</instanceId>
  <device>/dev/sdh</device>
  <status>attaching</status>
  <attachTime>2008-05-07T11:51:50.000Z</attachTime>
</AttachVolumeResponse>
```

Related Operations

- [CreateVolume](#)
- [DeleteVolume](#)
- [DescribeVolumes](#)
- [DetachVolume](#)

AuthorizeSecurityGroupIn

Description

Adds permissions to a security group.

Permissions are specified by the IP protocol (TCP, UDP or ICMP), the source of the request (by IP range or an Amazon EC2 user-group pair), the source and destination port ranges (for TCP and UDP), and the ICMP codes and types (for ICMP). When authorizing ICMP, -1 can be used as a wildcard in the type and code fields.

Permission changes are propagated to instances within the security group as quickly as possible. However, depending on the number of instances, a small delay might occur.

When authorizing a user/group pair permission, *GroupName*, *SourceSecurityGroupName* and *SourceSecurityGroupOwnerId* must be specified. When authorizing a CIDR IP permission, *GroupName*, *IpProtocol*, *FromPort*, *ToPort* and *CidrIp* must be specified.

Request Parameters

Name	Description	Required
<i>UserId</i>	AWS Access Key ID. Type: String Default: None	Yes
<i>GroupName</i>	Name of the group to modify. The name must be valid and belong to the account Type: String Default: None	Yes
<i>IpProtocol</i>	IP protocol. Type: String Valid Values: <code>tcp</code> <code>udp</code> <code>icmp</code> Default: None	Yes
<i>FromPort</i>	Start of port range for the TCP and UDP protocols, or an ICMP type number. An ICMP type number of -1 indicates a wildcard (i.e., any ICMP type number). Type: Integer Default: None	Yes
<i>ToPort</i>	End of port range for the TCP and UDP protocols, or an ICMP code. An ICMP code of -1 indicates a wildcard (i.e., any ICMP code). Type: Integer Default: None	Yes
<i>SourceSecurityGroupOwnerId</i>	AWS User ID of an account. Cannot be used when specifying a CIDR IP address. Type: String Default: None	Yes

<i>SourceSecurityGroupName</i>	Name of the security group. Cannot be used when specifying a CIDR IP address. Type: String Default: None	Yes
<i>CidrIp</i>	CIDR range. Type: String Default: None Constraints: Valid CIDR IP address range.	Yes

Response Elements

Name	Description
AuthorizeSecurityGroupIngressResponseType	AuthorizeSecurityGroupIngressResponseType element. Type:

[AuthorizeSecurityGroupIngressResponseType](#)

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor:

AuthorizeSecurityGroupIngressResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor:

AuthorizeSecurityGroupIngressResponseType

Children: None

Examples

Example Request

This example grants TCP port 80 access from the 205.192.0.0/16 address range to the `websrv` security group.

```
https://ec2.amazonaws.com/?Action=AuthorizeSecurityGroupIngress
&IpProtocol=tcp
&FromPort=80
&ToPort=80
&CidrIp=205.192.0.0/16
&AuthParams
```

Example Response

```
<AuthorizeSecurityGroupIngressResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01/">
  <return>true</return>
</AuthorizeSecurityGroupIngressResponse>
```

Related Operations

- [CreateSecurityGroup](#)
- [DescribeSecurityGroups](#)
- [RevokeSecurityGroupIngress](#)
- [DeleteSecurityGroup](#)

BundleInstance

Description

Bundles the Windows instance. This procedure is not applicable for Linux and UNIX instances. For more information, go to the

[Amazon Elastic Compute Cloud Developer Guide](#) or
[Amazon Elastic Compute Cloud Getting Started Guide](#).



Note

During bundling, only the root store (C:\) is bundled. Data on other instance stores is not preserved.

Request Parameters

Name	Description	Required
<i>InstanceId</i>	<p>The ID of the instance to bundle.</p> <p>Type: String</p> <p>Default: None</p>	Yes
<i>Storage.S3.Bucket</i>	<p>The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error.</p> <p>Type: String</p> <p>Default: None</p>	Yes
<i>Storage.S3.Prefix</i>	<p>Specifies the beginning of the file name of the AMI.</p> <p>Type: String</p> <p>Default: None</p>	Yes
<i>Storage.S3.AWSAccessKeyId</i>	<p>The Access Key ID of the owner of the Amazon S3 bucket.</p> <p>Type: String</p> <p>Default: None</p>	Yes
<i>Storage.S3.UploadPolicy</i>	<p>A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf.</p> <p>Type: String</p> <p>Default: None</p>	Yes
<i>Storage.S3.UploadPolicySignature</i>	<p>The signature of the Base64 encoded JSON document.</p> <p>Type: String</p> <p>Default: None</p>	Yes

JSON Parameters

The upload policy gives Amazon EC2 limited permission to upload items into your Amazon S3 bucket. The following table describes the required parameters for the upload policy JSON document. Parameter names are case sensitive. For more information about upload policies and how to sign them, go to the [Amazon Elastic Compute Cloud Developer Guide](#).

Name	Description	Required
expiration	The expiration of the policy. We recommend 12 hours or longer.	Yes
conditions	A list of restrictions on what can be uploaded to Amazon S3. Must contain the bucket and ACL conditions in this table.	Yes
bucket	The bucket to store the AMI.	Yes
acl	This must be set to ec2-bundle-read.	Yes

Response Elements

Name	Description
BundleInstanceResponseType	<p>BundleInstanceResponseType element.</p> <p>Type: BundleInstanceResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, bundleInstanceTask</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: BundleInstanceResponseType</p> <p>Children: None</p>
bundleInstanceTask	<p>Bundle task.</p> <p>Type: BundleInstanceTaskType</p> <p>Ancestor: BundleInstanceResponseType</p> <p>Children: instanceId, bundleId, state, startTime, updateTime, storage, progress, and error</p>
instanceId	<p>Instance associated with this bundle task.</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
bundleId	<p>Identifier for this task.</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
state	<p>The state of the task.</p> <p>Type: xsd:string</p>

	<p>Valid Values: pending waiting-for-shutdown storing canceling complete failed</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
startTime	<p>The time this task started.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
updateTime	<p>The time of the most recent update for the task.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
storage	<p>Amazon S3 storage locations.</p> <p>Type: BundleInstanceTaskStorageType</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: s3</p>
s3	<p>Amazon S3 storage location.</p> <p>Type: BundleInstanceS3StorageType</p> <p>Ancestor: storage</p> <p>Children: bucket, prefix, awsAccessKeyId, uploadPolicy, and uploadPolicySignature</p>
bucket	<p>The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
prefix	<p>Specifies the beginning of the file name of the AMI.</p> <p>Type: xsd:string</p>

	<p>Ancestor: s3</p> <p>Children: None</p>
awsAccessKeyId	<p>The Access Key ID of the owner of the Amazon S3 bucket.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicy	<p>A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicySignature	<p>The signature of the Base64 encoded JSON document.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
progress	<p>The level of task completion, in percent (e.g., 20%).</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
error	<p>If the task fails, a description of the error.</p> <p>Type: BundleInstanceTaskErrorType</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: code, message</p>
code	<p>Error code.</p> <p>Type: xsd:string</p> <p>Ancestor: error</p> <p>Children: None</p>

`message`

Error message.

Type: xsd:string

Ancestor: error

Children: None

Examples

Example Request

This example bundles the i-e468cd8d instance.

```
https://ec2.amazonaws.com/?Action=BundleInstance&Insta
&Storage.S3.AWSAccessKeyId=10QMXFEV71ZS32XQFTR2
&Storage.S3.Bucket=my-bucket
&Storage.S3.Prefix=winami
&Storage.S3.UploadPolicy=eyJleHBpcmF0aW9uIjogIjIwMDgtM
&Storage.S3.UploadPolicySignature=fh5tyyyQD8W4C0Ethj3r
&AuthParams
```

Example Response

```
<BundleInstanceResponse xmlns="http://ec2.amazonaws.co
<requestId>bun-cla540a8</requestId>
<bundleInstanceTask>
  <instanceId>i-12345678</instanceId>
  <bundleId>bun-cla540a8</bundleId>
  <state>bundling</state>
  <startTime>2008-10-07T11:41:50.000Z</startTime>
  <updateTime>2008-10-07T11:51:50.000Z</updateTime>
  <progress>70%</progress>
  <storage>
    <S3>
      <bucket>my-bucket</bucket>
      <prefix>winami</prefix>
    </S3>
  </storage>
```

```
</bundleInstanceTask>  
</BundleInstanceResponse>
```

Related Operations

- [CancelBundleTask](#)
- [DescribeBundleTasks](#)

CancelBundleTask

Description

Cancels an Amazon EC2 bundling operation. For more information on bundling instances, go to the

[Amazon Elastic Compute Cloud Developer Guide](#) or
[Amazon Elastic Compute Cloud Getting Started Guide](#).

Request Parameters

Name	Description	Required
<i>BundleId</i>	The ID of the bundle task to cancel. Type: String Default: None	Yes

Response Elements

Name	Description
CancelBundleTaskResponseType	<p>CancelBundleTaskResponseType element.</p> <p>Type: CancelBundleTaskResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, bundleInstanceTask</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: CancelBundleTaskResponseType</p> <p>Children: None</p>
bundleInstanceTask	<p>Bundle task to cancel.</p> <p>Type: BundleInstanceTaskType</p> <p>Ancestor: CancelBundleTaskResponseType</p> <p>Children: instanceId, bundleId, state, startTime, updateTime, storage, progress, and error</p>
instanceId	<p>Instance associated with this bundle task.</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
bundleId	<p>Identifier for this task.</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
state	<p>The state of the task.</p> <p>Type: xsd:string</p>

	<p>Valid Values: pending waiting-for-shutdown storing canceling complete failed</p> <p>Ancestor: <code>bundleInstanceTask</code></p> <p>Children: None</p>
<code>startTime</code>	<p>The time this task started.</p> <p>Type: <code>xsd:dateTime</code></p> <p>Ancestor: <code>bundleInstanceTask</code></p> <p>Children: None</p>
<code>updateTime</code>	<p>The time of the most recent update for the task.</p> <p>Type: <code>xsd:dateTime</code></p> <p>Ancestor: <code>bundleInstanceTask</code></p> <p>Children: None</p>
<code>storage</code>	<p>Amazon S3 storage locations.</p> <p>Type: <code>BundleInstanceTaskStorageType</code></p> <p>Ancestor: <code>bundleInstanceTask</code></p> <p>Children: <code>s3</code></p>
<code>s3</code>	<p>Amazon S3 storage location.</p> <p>Type: <code>BundleInstanceS3StorageType</code></p> <p>Ancestor: <code>storage</code></p> <p>Children: <code>bucket</code>, <code>prefix</code>, <code>awsAccessKeyId</code>, <code>uploadPolicy</code>, and <code>uploadPolicySignature</code></p>
<code>bucket</code>	<p>The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error.</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>s3</code></p> <p>Children: None</p>
<code>prefix</code>	<p>Specifies the beginning of the file name of the AMI.</p> <p>Type: <code>xsd:string</code></p>

	<p>Ancestor: s3</p> <p>Children: None</p>
awsAccessKeyId	<p>The Access Key ID of the owner of the Amazon S3 bucket.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicy	<p>A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicySignature	<p>The signature of the Base64 encoded JSON document.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
progress	<p>The level of task completion, in percent (e.g., 20%).</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
error	<p>If the task fails, a description of the error.</p> <p>Type: BundleInstanceTaskErrorType</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: code, message</p>
code	<p>Error code.</p> <p>Type: xsd:string</p> <p>Ancestor: error</p> <p>Children: None</p>

`message`

Error message.

Type: xsd:string

Ancestor: error

Children: None

Examples

Example Request

This example cancels the bun-cla322b9 bundle task.

```
https://ec2.amazonaws.com/?Action=CancelBundleTask&Bur
```

Example Response

```
<CancelBundleTaskResponse xmlns="http://ec2.amazonaws.com/doc/2008-10-07/">  <bundleInstanceTask>    <instanceId>i-12345678</instanceId>    <bundleId>bun-cla322b9</bundleId>    <state>canceling</state>    <startTime>2008-10-07T11:41:50.000Z</startTime>    <updateTime>2008-10-07T11:51:50.000Z</updateTime>    <progress>20%</progress>    <storage>      <S3>        <bucket>my-bucket</bucket>        <prefix>my-new-image</prefix>      </S3>    </storage>  </bundleInstanceTask></CancelBundleTaskResponse>
```

Related Operations

- [BundleInstance](#)
- [DescribeBundleTasks](#)

ConfirmProductInstance

Description

Verifies whether a Amazon DevPay product code is associated with an instance. This can only be executed by the owner of the AMI and is useful when an AMI owner wants to verify whether a user's instance is eligible for support.

Request Parameters

Name	Description	Required
<i>ProductCode</i>	The product code to confirm. Type: String Default: None	Yes
<i>InstanceId</i>	The instance to confirm. Type: String Default: None	Yes

Response Elements

Name	Description
ConfirmProductInstanceResponseType	ConfirmProductInstanceResponseType element. Type:

[ConfirmProductInstanceResponseType](#)

Ancestor: None

Children: requestId, return, and ownerId

requestId

The ID of the request.

Type: xsd:string

Ancestor: ConfirmProductInstanceResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: ConfirmProductInstanceResponseType

Children: None

ownerId

The instance owner's account ID. Only present if the product code is attached to the instance.

Type: xsd:string

Ancestor: ConfirmProductInstanceResponseType

Children: None

Examples

Example Request

This example describes the confirms the product code is associated with the instance.

```
https://ec2.amazonaws.com/?Action=ConfirmProductInstar
```

Example Response

```
<ConfirmProductInstanceResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01/">
  <return>true</return>
  <ownerId>254933287430</ownerId>
</ConfirmProductInstanceResponse>
```

Related Operations

- [DescribeInstances](#)
- [RunInstances](#)

CreateKeyPair

Description

Creates a new 2048-bit RSA key pair with the specified name. The public key is stored by Amazon EC2 and the private key is displayed on the console. The private key is returned as an unencrypted PEM encoded PKCS#8 private key. If a key with the specified name already exists, Amazon EC2 returns an error.

Request Parameters

Name	Description	Required
<i>KeyName</i>	A unique name for the key pair. Type: String Default: None Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores.	Yes

Response Elements

Name	Description
CreateKeyPairResponseType	CreateKeyPairResponseType element. Type:

[CreateKeyPairResponseType](#)

Ancestor: None

Children: requestId, keyName, keyFingerprint, and keyMaterial

requestId

The ID of the request.

Type: xsd:string

Ancestor: CreateKeyPairResponseType

Children: None

keyName

The key pair name provided in the original request.

Type: xsd:string

Ancestor: CreateKeyPairResponseType

Children: None

keyFingerprint

A SHA-1 digest of the DER encoded private key.

Type: xsd:string

Ancestor: CreateKeyPairResponseType

Children: None

keyMaterial

An unencrypted PEM encoded RSA private key.

Type: xsd:string

Ancestor: CreateKeyPairResponseType

Children: None

Examples

Example Request

This example creates a key pair named gsg-keypair.

```
https://ec2.amazonaws.com/?Action=CreateKeyPair&KeyName=gsg-keypair
```

Example Response

```
<CreateKeyPairResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01/">
  <keyName>gsg-keypair</keyName>
  <keyFingerprint>1f:51:ae:28:bf:89:e9:d8:1f:25:5d:37:</keyFingerprint>
  <keyMaterial>-----BEGIN RSA PRIVATE KEY-----<br/>
MIIEoQIBAAKCAQBuLFg5ujHrtm1jnutSuo08Xe56L1T+HM8v/xkaaE<br/>
HungXQ29VTc8rc1bW0lkdi230H5eqkMHGhvEwqa0HWASUMl14o3o/J<br/>
5AU52EQfanIn3ZQ8lFW7Edp5a3q4DhjGlUKToHVbicL5E+g45zfB95<br/>
ebIUlq1qTbHkLbCC2r7RTn8vpQwp47BGVYGtGSBMpTRP5hnbzzuqjE<br/>
i8BygR4s3mHKBj8l+ePQxG1kGbF6R4yg6sECmXn17MRQVXODNHZbAq<br/>
91CXirkYGuVfLyLf1XenxfI50mDFms/mumTqloH07tr0oriHDR5K7v<br/>
ZNUJs7rw9gZRTrf7LylaJ58k0cyajw8TsC4e4LPbFaHwS1d6K8rXh6<br/>
3wcfgt5ecIu4TZf00E9IHjn+2eRlsrjBde0Ri7KiUNC/pAG23I6MdD<br/>
SWS4dMbrpb9FNSIcf9dcLxVM7/6KxgJNfZc9XWzUw77Jg8x92Zd0f\<br/>
tE8C3p9bbU9VGyY5vLCAiIb4qQKBgQDLi024GXrIkswF32YtBBMuVc<br/>
jUE5IpzRjTecd9I2qiIMUTwtgnw42auSCzbUeYMURPtDqyQ7p6AjMu<br/>
xW9MC0dtV6iPkCN7g0qiZXPRKaFbWADp16p8UAIvS/a5XXk5jwKBgC<br/>
iDCiK6JBRsMvpLbc0v5dKwP5alo1fmdR5PJJaV2qvZSj5CYNpMAy1/E<br/>
rdLNLDL4+TcnT7c62/aH01ohYaf/VCbRhtLlBfqGoQc7+sAc8vmKke<br/>
gC0iZzzNAapayz1+JcVTwwEid6j9JqNXbBc+Z2YwMi+T0Fv/P/hwk<br/>
DQbsz7LcY1HqXiHKYNWNvXgww0+oiChjxvEkSdsTTIfnK4VSCvU9B<br/>
rBYvChJZF7LvUH4YmVpHAoGAbZ2X7XvoeE0+uZ58/BGK0IGHByHBDj
```

```
gK+8zp4L9IbvLGDMJ08vft32XPEWuvI8twCzFH+CsWLQADZMZKSsBa  
JZKjTSu3i7vhvx6RzdSedXEMNTZWN4qlIx3kR5aHcukCgYA9T+Zrvn  
P8TTvW/6bdPi23ExzxZn7K0drfclyRph1LHMpA0Nv/x2xALIf91UB+  
2ERKKdwz0ZL9SWq6VTdhr/5G994CK72fy5WhyERbDjUIdHaK3M849:  
-----END RSA PRIVATE KEY-----</keyMaterial>  
</CreateKeyPairResponse>
```

Related Operations

- [RunInstances](#)
- [DescribeKeyPairs](#)
- [DeleteKeyPair](#)

CreateSecurityGroup

Description

Creates a new security group. Group names must be unique per account.

Every instance is launched in a security group. If no security group is specified during launch, the instances are launched in the default security group. Instances within the same security group have unrestricted network access to each other. Instances will reject network access attempts from other instances in a different security group. As the owner of instances you can grant or revoke specific permissions using the `AuthorizeSecurityGroupIngress` and `RevokeSecurityGroupIngress` operations.

Request Parameters

Name	Description	Required
<i>GroupName</i>	<p>Name of the security group.</p> <p>Type: String</p> <p>Default: None</p> <p>Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores.</p>	Yes
<i>GroupDescription</i>	<p>Description of the group. This is informational only. If the description contains spaces, you must enclose it in single quotes ('') or URL-encode it.</p> <p>Type: String</p> <p>Default: None</p> <p>Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores.</p>	Yes

Response Elements

Name	Description
CreateSecurityGroupResponseType	CreateSecurityGroupResponseType element. Type:

CreateSecurityGroupResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: CreateSecurityGroupResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: CreateSecurityGroupResponseType

Children: None

Examples

Example Request

This example creates the `websrv` security group.

```
https://ec2.amazonaws.com/?Action=CreateSecurityGroup&
```

Example Response

```
<CreateSecurityGroupResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">\n    <return>true</return>\n</CreateSecurityGroupResponse>
```

Related Operations

- [RunInstances](#)
- [DescribeSecurityGroups](#)
- [AuthorizeSecurityGroupIngress](#)
- [RevokeSecurityGroupIngress](#)
- [DeleteSecurityGroup](#)

CreateSnapshot

Description

Creates a snapshot of an Amazon EBS volume and stores it in Amazon S3. You can use snapshots for backups, to make identical copies of instance devices, and to save data before shutting down an instance. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide](#).

When taking a snapshot of a file system, we recommend unmounting it first. This ensures the file system metadata is in a consistent state, that the 'mounted indicator' is cleared, and that all applications using that file system are stopped and in a consistent state. Some file systems, such as xfs, can freeze and unfreeze activity so a snapshot can be made without unmounting.

For Linux/UNIX, enter the following command from the command line.

```
umount -d /dev/sdh
```

For Windows, open Disk Management, right-click the volume to unmount, and select Change Drive Letter and Path. Then, select the mount point to remove and click

Remove.

Request Parameters

Name	Description	Required
<i>VolumeId</i>	The ID of the Amazon EBS volume of which to take a snapshot. Type: String Default: None	Yes
<i>Description</i>	Description of the Amazon EBS snapshot. Type: String Default: None Constraints: 256 characters.	No

Response Elements

Name	Description
CreateSnapshotResponseType	<p>CreateSnapshotResponseType element.</p> <p>Type: CreateSnapshotResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, snapshotId, volumeId, status, startTime, progress, ownerId, volumeSize, and description</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSnapshotResponseType</p> <p>Children: None</p>
snapshotId	<p>The ID of the snapshot.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSnapshotResponseType</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSnapshotResponseType</p> <p>Children: None</p>
status	<p>Snapshot state (e.g.,</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSnapshotResponseType</p> <p>Children: None</p>
startTime	<p>Time stamp when the snapshot was initiated.</p> <p>Type: xsd:dateTime</p>

	<p>Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>
<code>progress</code>	<p>The progress of the snapshot, in percentage. Type: <code>xsd:string</code> Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>
<code>ownerId</code>	<p>The AWS account ID of the Amazon EBS snapshot owner. Type: <code>xsd:string</code> Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>
<code>volumeSize</code>	<p>The size of the volume, in GiB. Type: <code>xsd:string</code> Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>
<code>description</code>	<p>Description of the snapshot. Type: <code>xsd:string</code> Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>

Examples

Example Request

This example creates a snapshot of volume vol-4d826724.

```
https://ec2.amazonaws.com/?Action=CreateSnapshotAction
```

Example Response

```
<CreateSnapshotResponse xmlns="http://ec2.amazonaws.co</>CreateSnapshotResponse>
  <snapshotId>snap-78a54011</snapshotId>
  <volumeId>vol-4d826724</volumeId>
  <volumeSize>10</volumeSize>
  <status>pending</status>
  <startTime>2008-05-07T12:51:50.000Z</startTime>
  <progress>60%</progress>
  <ownerId>213457642086</ownerId>
  <description>Daily Backup</description>
</CreateSnapshotResponse>
```

Related Operations

- [DeleteSnapshot](#)
- [DescribeSnapshots](#)

CreateVolume

Description

Creates a new Amazon EBS volume to which any Amazon EC2 instance can attach within the same Availability Zone. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide](#).



Note

You must specify an Availability Zone when creating a volume. The volume and the instance to which it attaches must be in the same Availability Zone.

Request Parameters

Name	Description	Required
<i>Size</i>	The size of the volume, in GiBs. Required if you are not creating a volume from a snapshot. Type: String Valid Values: 1 - 1024 Default: None	Yes
<i>SnapshotId</i>	The snapshot from which to create the new volume. Type: String Default: None	No
<i>AvailabilityZone</i>	The Availability Zone in which to create the new volume. Type: String Default: None	Yes

Response Elements

Name	Description
CreateVolumeResponseType	<p>CreateVolumeResponseType element.</p> <p>Type: CreateVolumeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, volumeId, size, snapshotId, availabilityZone, status, and createTime</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateVolumeResponseType</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateVolumeResponseType</p> <p>Children: None</p>
size	<p>The size of the volume, in GiBs.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateVolumeResponseType</p> <p>Children: None</p>
snapshotId	<p>Snapshot from which the volume was created, if applicable.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateVolumeResponseType</p> <p>Children: None</p>
availabilityZone	<p>Availability Zone in which the volume was created.</p> <p>Type: xsd:string</p>

	<p>Ancestor: <code>CreateVolumeResponseType</code></p> <p>Children: None</p>
<code>status</code>	<p>Volume state (e.g.,</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>CreateVolumeResponseType</code></p> <p>Children: None</p>
<code>createTime</code>	<p>Time stamp when volume creation was initiated.</p> <p>Type: <code>xsd:dateTime</code></p> <p>Ancestor: <code>CreateVolumeResponseType</code></p> <p>Children: None</p>

Examples

Example Request

This example creates a new 800 GiB volume in Availability Zone us-east-1a.

```
https://ec2.amazonaws.com/?Action=CreateVolume&Size=800
```

Example Response

```
<CreateVolumeResponse xmlns="http://ec2.amazonaws.com/>
  <volumeId>vol-4d826724</volumeId>
  <size>800</size>
  <status>creating</status>
  <createTime>2008-05-07T11:51:50.000Z</createTime>
  <availabilityZone>us-east-1a</availabilityZone>
  <snapshotId></snapshotId>
</CreateVolumeResponse>
```

Related Operations

- [DeleteVolume](#)
- [DescribeVolumes](#)
- [AttachVolume](#)
- [DetachVolume](#)
- [DescribeAvailabilityZones](#)

DeleteKeyPair

Description

Deletes the specified key pair, by removing the public key from Amazon EC2. You must own the key pair.

Request Parameters

Name	Description	Required
<i>KeyName</i>	Name of the key pair to delete. Type: String Default: None	Yes

Response Elements

Name	Description
DeleteKeyValuePairResponseType	DeleteKeyValuePairResponseType element. Type:

DeleteKeyValuePairResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: DeleteKeyValuePairResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: DeleteKeyValuePairResponseType

Children: None

Examples

Example Request

This example deletes the gsg-keypair key pair.

```
https://ec2.amazonaws.com/?Action=DeleteKeyPair&KeyNa
```

Example Response

```
<DeleteKeyPairResponse xmlns="http://ec2.amazonaws.com">
  <return>true</return>
</DeleteKeyPairResponse>
```

Related Operations

- [CreateKeyPair](#)
- [DescribeKeyPairs](#)

DeleteSecurityGroup

Description

Deletes a security group that you own.



Note

If you attempt to delete a security group that contains instances, a fault is returned.

If you attempt to delete a security group that is referenced by another security group, a fault is returned. For example, if security group B has a rule that allows access from security group A, security group A cannot be deleted until the allow rule is removed.

Request Parameters

Name	Description	Required
<i>GroupName</i>	Name of the security group to delete. Type: String Default: None	Yes

Response Elements

Name	Description
DeleteSecurityGroupResponseType	DeleteSecurityGroupResponseType element. Type:

DeleteSecurityGroupResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: DeleteSecurityGroupResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: DeleteSecurityGroupResponseType

Children: None

Examples

Example Request

This example deletes the websrv security group.

```
https://ec2.amazonaws.com/?Action=DeleteSecurityGroup&
```

Example Response

```
<DeleteSecurityGroupResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">\n    <return>true</return>\n</DeleteSecurityGroupResponse>
```

Related Operations

- [CreateSecurityGroup](#)
- [DescribeSecurityGroups](#)
- [AuthorizeSecurityGroupIngress](#)
- [RevokeSecurityGroupIngress](#)

DeleteSnapshot

Description

Deletes a snapshot of an Amazon EBS volume that you own. For more information, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
<i>SnapshotId</i>	The ID of the Amazon EBS snapshot to delete. Type: String Default: None	Yes

Response Elements

Name	Description
DeleteSnapshotResponseType	<p>DeleteSnapshotResponseType element.</p> <p>Type: DeleteSnapshotResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DeleteSnapshotResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: DeleteSnapshotResponseType</p> <p>Children: None</p>

Examples

Example Request

This example deletes snapshot snap-78a54011.

```
https://ec2.amazonaws.com/?Action=DeleteSnapshot&Snaps
```

Example Response

```
<DeleteSnapshotResponse xmlns="http://ec2.amazonaws.co
  <return>true</return>
</DeleteSnapshotResponse>
```

Related Operations

- [CreateSnapshot](#)
- [DescribeSnapshots](#)

DeleteVolume

Description

Deletes an Amazon EBS volume that you own. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)



Note

The volume remains in the deleting state for several minutes after you enter this command.

Request Parameters

Name	Description	Required
<i>VolumeId</i>	The ID of the volume to delete. The volume remains in the Type: String Default: None	Yes

Response Elements

Name	Description
DeleteVolumeResponseType	<p>DeleteVolumeResponseType element.</p> <p>Type: DeleteVolumeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DeleteVolumeResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: DeleteVolumeResponseType</p> <p>Children: None</p>

Examples

Example Request

This example deletes volume vol-4282672b.

```
https://ec2.amazonaws.com/?Action=DeleteVolume&VolumeID=vol-4282672b
```

Example Response

```
<DeleteVolumeResponse xmlns="http://ec2.amazonaws.com/>
  <return>true</return>
</DeleteVolumeResponse>
```

Related Operations

- [CreateVolume](#)
- [DescribeVolumes](#)
- [AttachVolume](#)
- [DetachVolume](#)

DeregisterImage

Description

Deregisters the specified AMI. Once deregistered, the AMI cannot be used to launch new instances.



Note

This command does not delete the AMI from Amazon S3.

Request Parameters

Name	Description	Required
<i>ImageId</i>	Unique ID of the AMI which was assigned during registration. To register an AMI, use Type: String Default: None	Yes

Response Elements

Name	Description
DeregisterImageResponseType	DeregisterImageResponseType element. Type:

DeregisterImageResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: DeregisterImageResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: DeregisterImageResponseType

Children: None

Examples

Example Request

This example deregisters the ami-4fa54026 AMI.

```
https://ec2.amazonaws.com/?Action=DeregisterImage&ImageId=ami-4fa54026
```

Example Response

```
<DeregisterImageResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">  <return>true</return>
</DeregisterImageResponse>
```

Related Operations

- [RegisterImage](#)
- [DescribeImages](#)

DescribeAddresses

Description

Lists elastic IP addresses assigned to your account or provides information about a specific address.

Request Parameters

Name	Description	Required
<i>PublicIp.n</i>	Elastic IP address to describe. Type: String Default: None	No

Response Elements

Name	Description
DescribeAddressesResponseType	DescribeAddressesResponseType element. Type:

DescribeAddressesResponseType

Ancestor: None

Children: requestId, addressesSet

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeAddressesResponseType

Children: None

addressesSet

The set of IP addresses.

Type: [DescribeAddressesResponseInfoType](#)

Ancestor: DescribeAddressesResponseType

Children: item

item

Information about an instance.

Type: [DescribeAddressesResponseItemType](#)

Ancestor: addressesSet

Children: publicIp, instanceId

publicIp

The public IP address.

Type: xsd:string

Ancestor: item

Children: None

instanceId

The ID of the instance.

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example describes elastic IP addresses assigned to the account. Amazon EC2 returns 67.202.55.255 which is assigned to instance i-f15ebb98 and 67.202.55.233 which is not assigned to an instance.

```
https://ec2.amazonaws.com/?Action=DescribeAddresses&Pu  
&PublicIp.1=67.202.55.233&AuthParams
```

Example Response

```
<DescribeAddressesResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01/">  
  <addressesSet>  
    <item>  
      <instanceId>i-f15ebb98</instanceId>  
      <publicIp>67.202.55.255</publicIp>  
    </item>  
    <item>  
      <publicIp>67.202.55.233</publicIp>  
    </item>  
  </addressesSet>  
</DescribeAddressesResponse>
```

Related Operations

- [AllocateAddress](#)
- [ReleaseAddress](#)

DescribeAvailabilityZones

Description

Displays Availability Zones that are currently available to the account and their states.



Note

Availability Zones are not the same across accounts. The Availability Zone us-east-1a for account A is not necessarily the same as us-east-1a for account B. Zone assignments are mapped independently for each account.

Request Parameters

Name	Description	Required
<code>ZoneName</code>	Availability Zone name. Type: String Default: None	No

Response Elements

Name	Description
DescribeAvailabilityZonesResponseType	DescribeAvailabilityZonesResponseType element. Type:

DescribeAvailabilityZonesResponseType

Ancestor: None

Children: requestId, availabilityZoneInfo

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeAvailabilityZonesResponseType

Children: None

availabilityZoneInfo

Availability Zone information.

Type: [AvailabilityZoneSetType](#)

Ancestor: DescribeAvailabilityZonesResponseType

Children: item

item

Information for one Availability Zone.

Type: [AvailabilityZoneItemType](#)

Ancestor: availabilityZoneInfo

Children: zoneName, zoneState, regionName, and messageSet

zoneName

Name of the Availability Zone.

Type: xsd:string

Ancestor: item

Children: None

zoneState

State of the Availability Zone.

Type: xsd:string

Valid Values: available

Ancestor: item

Children: None

regionName

Name of the region.

Type: xsd:string

Ancestor: item

Children: None

messageSet

Message set.

Type: [AvailabilityZoneMessageType](#)

Ancestor: item

Children: item

item

Availability Zone message set.

Type: [AvailabilityZoneMessageType](#)

Ancestor: messageSet

Children: message

message

The Availability Zone message.

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example displays information about Availability Zones that are available to the account.

```
https://ec2.amazonaws.com/?Action=DescribeAvailability
```

Example Response

```
<DescribeAvailabilityZonesResponse xmlns="http://ec2.a</pre><availabilityZoneInfo><item><zoneName>us-east-1a</zoneName><zoneState>available</zoneState></item><item><zoneName>us-east-1b</zoneName><zoneState>available</zoneState></item><item><zoneName>us-east-1c</zoneName><zoneState>available</zoneState></item><item><zoneName>us-east-1d</zoneName><zoneState>available</zoneState></item></availabilityZoneInfo></DescribeAvailabilityZonesResponse>
```


Related Operations

- [RunInstances](#)
- [DescribeRegions](#)

DescribeBundleTasks

Description

Describes current bundling tasks. For more information on bundling instances, go to the

[Amazon Elastic Compute Cloud Developer Guide](#) or
[Amazon Elastic Compute Cloud Getting Started Guide](#).

Request Parameters

Name	Description	Required
<i>BundleId</i>	<p>The ID of the bundle task to describe.</p> <p>Type: String</p> <p>Default: If no ID is specified, all bundle tasks are described.</p>	No

Response Elements

Name	Description
DescribeBundleTasksResponseType	<p>DescribeBundleTasksResponseType element.</p> <p>Type: DescribeBundleTasksResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, bundleInstanceTasksSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeBundleTasksResponseType</p> <p>Children: None</p>
bundleInstanceTasksSet	<p>Bundle task set.</p> <p>Type: BundleInstanceTasksSetType</p> <p>Ancestor: DescribeBundleTasksResponseType</p> <p>Children: item</p>
item	<p>Bundle task.</p> <p>Type: BundleInstanceTaskType</p> <p>Ancestor: bundleInstanceTasksSet</p> <p>Children: instanceId, bundleId, state, startTime, updateTime, storage, progress, and error</p>
instanceId	<p>Instance associated with this bundle task.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
bundleId	<p>Identifier for this task.</p> <p>Type: xsd:string</p>

	<p>Ancestor: item</p> <p>Children: None</p>
state	<p>The state of the task.</p> <p>Type: xsd:string</p> <p>Valid Values: pending waiting-for-shutdown storing canceling complete failed</p> <p>Ancestor: item</p> <p>Children: None</p>
startTime	<p>The time this task started.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
updateTime	<p>The time of the most recent update for the task.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
storage	<p>Amazon S3 storage locations.</p> <p>Type: BundleInstanceTaskStorageType</p> <p>Ancestor: item</p> <p>Children: s3</p>
s3	<p>Amazon S3 storage location.</p> <p>Type: BundleInstanceS3StorageType</p> <p>Ancestor: storage</p> <p>Children: bucket, prefix, awsAccessKeyId, uploadPolicy, and uploadPolicySignature</p>
bucket	<p>The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error.</p> <p>Type: xsd:string</p>

	<p>Ancestor: s3</p> <p>Children: None</p>
prefix	<p>Specifies the beginning of the file name of the AMI.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
awsAccessKeyId	<p>The Access Key ID of the owner of the Amazon S3 bucket.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicy	<p>A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicySignature	<p>The signature of the Base64 encoded JSON document.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
progress	<p>The level of task completion, in percent (e.g., 20%).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
error	<p>If the task fails, a description of the error.</p> <p>Type: BundleInstanceTaskErrorType</p> <p>Ancestor: item</p> <p>Children: code, message</p>

code	Error code. Type: xsd:string Ancestor: error Children: None
message	Error message. Type: xsd:string Ancestor: error Children: None

Examples

Example Request

This example describes the status of the bun-57a5403e bundle task.

```
https://ec2.amazonaws.com/?Action=DescribeBundleTasks&
```

Example Response

```
<DescribeBundleTasksResponse xmlns="http://ec2.amazonaws.com/doc/2008-10-07/">  <bundleInstanceTasksSet>    <item>      <instanceId>i-12345678</instanceId>      <bundleId>bun-c1a540a8</bundleId>      <state>canceling</state>      <startTime>2008-10-07T11:41:50.000Z</startTime>      <updateTime>2008-10-07T11:51:50.000Z</updateTime>      <progress>20%</progress>      <storage>        <S3>          <bucket>my-bucket</bucket>          <prefix>winami</prefix>        </S3>      </storage>    </item>  </bundleInstanceTasksSet></DescribeBundleTasksResponse>
```

Related Operations

- [BundleInstance](#)
- [CancelBundleTask](#)

DescribeImageAttribute

Description

Returns information about an attribute of an AMI. Only one attribute can be specified per call.

Request Parameters

Name	Description	Required
<i>ImageId</i>	The ID of the AMI for which an attribute will be described. Type: String Default: None	Yes
<i>Attribute=launchPermission</i>	Describes the launch permissions of the AMI. Type: String Default: None	No
<i>Attribute=productCodes</i>	Describes the product code associated with the AMI. Type: String Default: None	No
<i>Attribute=kernel</i>	Describes the ID of the kernel associated with the AMI. Type: String Default: None	No
<i>Attribute=ramdisk</i>	Describes the ID of the RAM disk associated with the AMI. Type: String Default: None	No
<i>Attribute=blockDeviceMapping</i>	Describes the mapping that defines native device names to use when exposing virtual devices. Type: String Default: None	No
<i>Attribute=platform</i>	Describes the operating system platform. Type: String Default: None	No

Response Elements

Name	Description
DescribeImageAttributeResponseType	DescribeImageAttributeResponseType element. Type:

DescribeImageAttributeResponseType

Ancestor: None

Children: requestId, imageId, launchPermission, productCodes, kernel, ramdisk, and blockDeviceMapping

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeImageAttributeResponseType

Children: None

imageId

The ID of the AMI.

Type: xsd:string

Ancestor: `DescribeImageAttributeResponseType`

Children: `None`

`launchPermission`

Launch permissions set.

Type: [`LaunchPermissionListType`](#)

Ancestor: `DescribeImageAttributeResponseType`

Children: `item`

`item`

Information for launch permissions.

Type: [`LaunchPermissionItemType`](#)

Ancestor: `launchPermission`

Children: `userId, group`

`userId`

AWS Access Key ID.

Type: `xsd:string`

Ancestor: item

Children: None

group

Name of the group. Currently supports "all."

Type: xsd:string

Ancestor: item

Children: None

productCodes

Product codes set.

Type: [ProductCodeListType](#)

Ancestor: DescribeImageAttributeResponseType

Children: item

item

Information for one product code.

Type: [ProductCodeItemType](#)

Ancestor: productCodes

Children: productCode

productCode

Product code.

Type: xsd:string

Ancestor: item

Children: None

kernel

Kernel set.

Type: [NullableAttributeValue Type](#)

Ancestor: DescribeImageAttributeResponseType

Children: value

value

ID of the kernel or RAM disk.

Type: xsd:string

Ancestor: kernel

Children: None

ramdisk

RAM disk set.

Type: [NullableAttributeValue Type](#)

Ancestor: DescribeImageAttributeResponseType

Children: value

value

ID of the kernel or RAM disk.

Type: xsd:string

Ancestor: ramdisk

Children: None

blockDeviceMapping

Block device mapping set.

Type: [BlockDeviceMapping Type](#)

Ancestor: `DescribeImageAttributeResponseType`

Children: `item`

`item`

Information for one block device mapping.

Type: [`BlockDeviceMappingItemType`](#)

Ancestor: `blockDeviceMapping`

Children: `virtualName`, `deviceName`

`virtualName`

The virtual name.

Type: `xsd:string`

Ancestor: `item`

Children: None

`deviceName`

The device name (e.g., `/dev/sdh`).

Type: `xsd:string`

Ancestor: item

Children: None

Examples

Example Request

This example lists the launch permissions for the ami-61a54008 AMI

```
https://ec2.amazonaws.com/?Action=DescribeImageAttribute&ImageId=ami-61a54008
```

Example Response

```
<DescribeImageAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2011-08-15/">
  <imageId>ami-61a54008</imageId>
  <launchPermission>
    <item>
      <group>all</group>
    </item>
    <item>
      <userId>495219933132</userId>
    </item>
  </launchPermission>
</DescribeImageAttributeResponse>
```

Example Request

This example lists the product code for the ami-2bb65342AMI.

<https://ec2.amazonaws.com/?Action=DescribeImageAttribute>

Example Response

```
<DescribeImageAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2011-08-15/">\n    <imageId>ami-61a54008</imageId>\n    <productCodes>\n        <item>\n            <productCode>774F4FF8</productCode>\n        </item>\n    </productCodes>\n</DescribeImageAttributeResponse>
```

Related Operations

- [DescribeImages](#)
- [ModifyImageAttribute](#)
- [ResetImageAttribute](#)

DescribeImages

Description

Returns information about AMIs, AKIs, and ARIs. This includes image type, product codes, architecture, and kernel and RAM disk IDs. Images available to you include public images, private images that you own, and private images owned by other users for which you have explicit launch permissions.

Launch permissions fall into three categories:

Launch Permission	Description
public	The owner of the AMI granted launch permissions for the AMI to the <code>all</code> group. All users have launch permissions for these AMIs.
explicit	The owner of the AMI granted launch permissions to a specific user.
implicit	A user has implicit launch permissions for all AMIs he or she owns.

The list of AMIs returned can be modified by specifying AMI IDs, AMI owners, or users with launch permissions. If no options are specified, Amazon EC2 returns all AMIs for which the user has launch permissions.

If you specify one or more AMI IDs, only AMIs that have the specified IDs are returned. If you specify an invalid AMI ID, a fault is returned. If you specify an AMI ID for which you do not have access, it will not be

included in the returned results.

If you specify one or more AMI owners, only AMIs from the specified owners and for which you have access are returned. The results can include the account IDs of the specified owners, *amazon* for AMIs owned by Amazon or *self* for AMIs that you own.

If you specify a list of executable users, only users that have launch permissions for the AMIs are returned. You can specify account IDs (if you own the AMI(s)), *self* for AMIs for which you own or have explicit permissions, or *all* for public AMIs.



Note

Deregistered images are included in the returned results for an unspecified interval after deregistration.

Request Parameters

Name	Description	Required
<i>ExecutableBy</i>	Returns AMIs for which the specified user has explicit launch permissions. The user ID can be a user's account ID, Type: String Default: None	No
<i>ImageId</i>	AMI IDs to describe. Type: String Default: Returns all AMIs.	No
<i>Owner</i>	Returns AMIs owned by the specified owner. Multiple owners can be specified. The IDs Type: String Default: None	No

Response Elements

Name	Description
DescribeImagesResponseType	DescribeImagesResponseType element. Type:

DescribeImagesResponseType

Ancestor: None

Children: requestId, imagesSet

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeImagesResponseType

Children: None

imagesSet

Image set.

Type: [DescribeImagesResponseInfoType](#)

Ancestor: DescribeImagesResponseType

Children: item

item

Information for one image.

Type: [DescribeImagesResponseType](#)

Ancestor: imagesSet

Children: imageId, imageLocation, imageState, imageOwnerId, isPublic, productCodes, architecture, imageType, kernelId, ramdiskId, and platform

imageId

The ID of the AMI.

Type: xsd:string

Ancestor: item

Children: None

imageLocation

The location of the AMI.

Type: xsd:string

Ancestor: item

Children: None

imageState

Current state of the AMI. If the operation returns

Type: xsd:string

Ancestor: item

Children: None

imageOwnerId

AWS Access Key ID of the image owner.

Type: xsd:string

Ancestor: item

Children: None

isPublic

Returns

Type: xsd:boolean

Ancestor: item

Children: None

productCodes

Product codes of the AMI.

Type: [ProductCodesSetType](#)

Ancestor: item

Children: item

item

Information for one product code.

Type: [ProductCodesSetItemType](#)

Ancestor: productCodes

Children: productCode

productCode

Product code.

Type: xsd:string

Ancestor: item

Children: None

architecture

The architecture of the image (

Type: xsd:string

Ancestor: item

Children: None

imageType

The type of image (

Type: xsd:string

Ancestor: item

Children: None

kernelId

The kernel associated with the image, if any. Only applicable for machine images.

Type: xsd:string

Ancestor: item

Children: None

ramdiskId

The RAM disk associated with the image, if any. Only applicable for machine images.

Type: xsd:string

Ancestor: item

Children: None

platform

The operating platform of the instance.

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example describes the ami-be3adfd7 AMI.

```
https://ec2.amazonaws.com/?Action=DescribeImages&ImageId=ami-be3adfd7
```

Example Response

```
<DescribeImagesResponse xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <imagesSet>
    <item>
      <imageId>ami-be3adfd7</imageId>
      <imageLocation>ec2-public-images/fedora-8-i386-kernel-4438dd2d-ramdisk-4538dd2c</imageLocation>
      <imageState>available</imageState>
      <imageOwnerId>206029621532</imageOwnerId>
      <isPublic>false</isPublic>
      <architecture>i386</architecture>
      <imageType>machine</imageType>
      <kernelId>aki-4438dd2d</kernelId>
      <ramdiskId>ari-4538dd2c</ramdiskId>
    </item>
  </imagesSet>
</DescribeImagesResponse>
```

Related Operations

- [DescribeInstances](#)
- [DescribeImageAttribute](#)

DescribeInstances

Description

Returns information about instances that you own.

If you specify one or more instance IDs, Amazon EC2 returns information for those instances. If you do not specify instance IDs, Amazon EC2 returns information for all relevant instances. If you specify an invalid instance ID, a fault is returned. If you specify an instance that you do not own, it will not be included in the returned results.

Recently terminated instances might appear in the returned results. This interval is usually less than one hour.

Request Parameters

Name	Description	Required
<i>InstanceId.n</i>	Instance IDs to describe. Type: String Default: Returns all instances.	No

Response Elements

Name	Description
DescribeInstancesResponseType	DescribeInstancesResponseType element. Type:

DescribeInstancesResponseType

Ancestor: None

Children: requestId, reservationSet

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeInstancesResponseType

Children: None

reservationSet

Reservation set.

Type: [ReservationSetType](#)

Ancestor: DescribeInstancesResponseType

Children: item

item

Information for a reservation.

Type: [ReservationInfoType](#)

Ancestor: reservationSet

Children: reservationId, ownerId, groupSet, instancesSet, and requesterId

reservationId

Unique ID of the reservation.

Type: xsd:string

Ancestor: item

Children: None

ownerId

AWS Access Key ID of the user who owns the reservation.

Type: xsd:string

Ancestor: item

Children: None

groupSet

Group set.

Type: [GroupSetType](#)

Ancestor: item

Children: item

item

Group set item.

Type: [GroupItemType](#)

Ancestor: groupSet

Children: groupId

groupId

Name of the security group.

Type: xsd:string

Ancestor: item

Children: None

instancesSet

Instance set.

Type: [RunningInstancesSetType](#)

Ancestor: item

Children: item

item

Running instance set item.

Type: [RunningInstancesItemType](#)

Ancestor: instancesSet

Children: instanceId, imageId, instanceState, privateDnsName, dnsName, reason, keyName, amiLaunchIndex, productCodes, instanceType, launchTime, placement, kernelId, ramdiskId, platform, monitoring, subnetId, vpcId, privateIpAddress, and ipAddress

instanceId

Unique ID of the instance launched.

Type: xsd:string

Ancestor: item

Children: None

imageId

Image ID of the AMI used to launch the instance.

Type: xsd:string

Ancestor: item

Children: None

instanceState

The current state of the instance.

Type: [InstanceStateType](#)

Ancestor: item

Children: code, name

code

A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:

Type: xsd:int

Ancestor: instanceState

Children: None

name

The current state of the instance.

Type: xsd:string

Ancestor: instanceState

Children: None

privateDnsName

The private DNS name assigned to the instance. This DNS name can only be used inside the Amazon EC2 network. This element remains empty until the instance enters a running state.

Type: xsd:string

Ancestor: item

Children: None

dnsName

The public DNS name assigned to the instance. This DNS name is contactable from outside the Amazon EC2 network. This element remains empty until the instance enters a running state.

Type: xsd:string

Ancestor: item

Children: None

reason

Reason for the most recent state transition. This might be an empty string.

Type: xsd:string

Ancestor: item

Children: None

keyName

If this instance was launched with an associated key pair, this displays the key pair name.

Type: xsd:string

Ancestor: item

Children: None

amiLaunchIndex

The AMI launch index, which can be used to find this instance within the launch group. For more information, go to the Metadata section of the

Type: xsd:string

Ancestor: item

Children: None

productCodes

Product codes attached to this instance.

Type: [ProductCodesSetType](#)

Ancestor: item

Children: item

`item`

Information for one product code.

Type: [ProductCodesSetItemType](#)

Ancestor: `productCodes`

Children: `productCode`

`productCode`

Product code.

Type: `xsd:string`

Ancestor: `item`

Children: None

`instanceType`

The instance type.

Type: `xsd:string`

Ancestor: `item`

Children: None

`launchTime`

The time the instance launched.

Type: xsd:dateTime

Ancestor: item

Children: None

`placement`

The location where the instance launched.

Type: [PlacementResponseType](#)

Ancestor: item

Children: availabilityZone

`availabilityZone`

Returns the Availability Zones of the instances.

Type: xsd:string

Ancestor: placement

Children: None

`kernelId`

Optional. Kernel associated with this instance.

Type: `xsd:string`

Ancestor: `item`

Children: None

`ramdiskId`

Optional. RAM disk associated with this instance.

Type: `xsd:string`

Ancestor: `item`

Children: None

`platform`

Platform of the instance (e.g., Windows).

Type: `xsd:string`

Ancestor: `item`

Children: None

`monitoring`

Specifies whether monitoring is enabled for the instance.

Type: [InstanceMonitoringStateType](#)

Ancestor: `item`

Children: `state`

`state`

State of monitoring for the instance.

Type: `xsd:string`

Valid Values: `monitoring-enabled` (enabled) | `monitoring-pending` (pending) | `monitoring-disabled` (disabled)

Ancestor: `monitoring`

Children: None

`subnetId`

Specifies the subnet ID in which the instance is running (Amazon Virtual Private Cloud).

Type: `xsd:string`

Ancestor: item

Children: None

vpcId

Specifies the VPC in which the instance is running (Amazon Virtual Private Cloud).

Type: xsd:string

Ancestor: item

Children: None

privateIpAddress

Specifies the private IP address that is assigned to the instance (Amazon VPC).

Type: xsd:string

Ancestor: item

Children: None

ipAddress

Specifies the IP address of the instance.

Type: xsd:string

Ancestor: item

Children: None

requesterId

ID of the requester.

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example describes the current state of the instances owned by this user.

```
https://ec2.amazonaws.com/?Action=DescribeInstances&A
```

Example Response

```
<DescribeInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <reservationSet>
    <item>
      <reservationId>r-44a5402d</reservationId>
      <ownerId>UYY3TLBUXIE0N5NQVUUX60MPWBZIQNFM</ownerId>
      <groupSet>
        <item>
          <groupId>default</groupId>
        </item>
      </groupSet>
      <instancesSet>
        <item>
          <instanceId>i-28a64341</instanceId>
          <imageId>ami-6ea54007</imageId>
          <instanceState>
            <code>0</code>
            <name>running</name>
          </instanceState>
          <privateDnsName>10-251-50-132.ec2.internal</privateDnsName>
          <dnsName>ec2-72-44-33-4.compute-1.amazonaws.com</dnsName>
        </item>
      </instancesSet>
    </item>
  </reservationSet>
</DescribeInstancesResponse>
```

```
<keyName>example-key-name</keyName>
<amiLaunchIndex>23</amiLaunchIndex>
<productCodesSet>
    <item><productCode>774F4FF8</productCode></item>
</productCodesSet>
<instanceType>m1.large</instanceType>
<launchTime>2007-08-07T11:54:42.000Z</launchTime>
<placement>
    <availabilityZone>us-east-1k</availabilityZone>
</placement>
<kernelId>aki-ba3adfd3</kernelId>
<ramdiskId>ari-badbad00</ramdiskId>
</item>
<item>
    <instanceId>i-28a64435</instanceId>
    <imageId>ami-6ea54007</imageId>
    <instanceState>
        <code>0</code>
        <name>running</name>
    </instanceState>
    <privateDnsName>10-251-50-134.ec2.internal</privateDnsName>
    <dnsName>ec2-72-44-33-6.compute-1.amazonaws.com</dnsName>
    <keyName>example-key-name</keyName>
    <amiLaunchIndex>23</amiLaunchIndex>
    <productCodesSet>
        <item><productCode>774F4FF8</productCode></item>
    </productCodesSet>
    <instanceType>m1.large</instanceType>
    <launchTime>2007-08-07T11:54:42.000Z</launchTime>
    <placement>
        <availabilityZone>us-east-1k</availabilityZone>
    </placement>
    <kernelId>aki-ba3adfd3</kernelId>
    <ramdiskId>ari-badbad00</ramdiskId>
</item>
</instancesSet>
</item>
```

```
</reservationSet>
</DescribeInstancesResponse>
```

Related Operations

- [RunInstances](#)
- [TerminateInstances](#)

DescribeKeyPairs

Description

Returns information about key pairs available to you. If you specify key pairs, information about those key pairs is returned. Otherwise, information for all registered key pairs is returned.

Request Parameters

Name	Description	Required
<i>KeyName.n</i>	Key pair to describe. Type: String Default: Describes all key pairs available to the account.	No

Response Elements

Name	Description
DescribeKeyPairsResponseType	DescribeKeyPairsResponseType element. Type:

DescribeKeyPairsResponseType

Ancestor: None

Children: requestId, keySet

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeKeyPairsResponseType

Children: None

keySet

Information for a key pair.

Type: [DescribeKeyPairsResponseInfoType](#)

Ancestor: DescribeKeyPairsResponseType

Children: item

item

Information for a key pair.

Type: [DescribeKeyPairsResponseItemType](#)

Ancestor: keySet

Children: keyName, keyFingerprint

keyName

The key pair name provided in the original request.

Type: xsd:string

Ancestor: item

Children: None

keyFingerprint

A SHA-1 digest of the DER encoded private key.

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example describes the state of the gsg-keypair key.

```
https://ec2.amazonaws.com/?Action=DescribeKeyPairs&Key
```

Example Response

```
<DescribeKeyPairsResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">  <keySet>    <item>      <keyName>gsg-keypair</keyName>      <keyFingerprint>1f:51:ae:28:bf:89:e9:d8:1f:25:5c:...</keyFingerprint>    </item>  </keySet></DescribeKeyPairsResponse>
```

Related Operations

- [DescribeAvailabilityZones](#)
- [RunInstances](#)

DescribeRegions

Description

Describes regions that are currently available to the account.

Request Parameters

Name	Description	Required
<i>RegionName.n</i>	Name of a region. Type: String Default: Describes all regions available to the account.	No

Response Elements

Name	Description
DescribeRegionsResponseType	DescribeRegionsResponseType element. Type:

DescribeRegionsResponseType

Ancestor: None

Children: requestId, regionInfo

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeRegionsResponseType

Children: None

regionInfo

Region set.

Type: [RegionSetType](#)

Ancestor: DescribeRegionsResponseType

Children: item

item

Information for a region.

Type: [RegionItemType](#)

Ancestor: regionInfo

Children: regionName, regionEndpoint

regionName

Name of the region.

Type: xsd:string

Ancestor: item

Children: None

regionEndpoint

Region service endpoint.

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example displays regions that are available to the account.

```
https://ec2.amazonaws.com/?Action=DescribeRegions&Region
```

Example Response

```
<DescribeRegionsResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01/">
  <regionInfo>
    <item>
      <regionName>us-east-1</regionName>
      <regionEndpoint>us-east-1.ec2.amazonaws.com</regionEndpoint>
    </item>
    <item>
      <regionName>eu-west-1</regionName>
      <regionUrl>eu-west-1.ec2.amazonaws.com</regionUrl>
    </item>
  </regionInfo>
</DescribeRegionsResponse>
```

Related Operations

- [DescribeAvailabilityZones](#)
- [RunInstances](#)

DescribeReservedInstances

Description

Describes Reserved Instances that you purchased. For more information about Reserved Instances, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
<i>ReservedInstancesId.n</i>	IDs of the Reserved Instance to describe. Type: String Default: None	No

Response Elements

Name	Description
DescribeReservedInstancesResponseType	<p>DescribeReservedInstancesResponseType element.</p> <p>Type: DescribeReservedInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservedInstancesSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeReservedInstancesResponseType</p> <p>Children: None</p>
reservedInstancesSet	<p>Reserved Instances set.</p> <p>Type: DescribeReservedInstancesResponseType</p> <p>Ancestor: DescribeReservedInstancesResponseType</p> <p>Children: item</p>
item	<p>Reserved Instance set.</p> <p>Type: DescribeReservedInstancesResponseType</p> <p>Ancestor: reservedInstancesSet</p> <p>Children: reservedInstancesId, instanceType, availabilityZone, start, duration, fixedPrice, usagePrice, instanceCount, productDescription, and state</p>
reservedInstancesId	<p>The ID of the Reserved Instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceType	<p>The instance type on which the Reserved Instance can be used.</p> <p>Type: xsd:string</p>

	<p>Ancestor: item</p> <p>Children: None</p>
availabilityZone	<p>The Availability Zone in which the Reserved Instance can be used.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
start	<p>The date and time the Reserved Instance started.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
duration	<p>The duration of the Reserved Instance, in seconds.</p> <p>Type: xs:long</p> <p>Ancestor: item</p> <p>Children: None</p>
fixedPrice	<p>The purchase price of the Reserved Instance.</p> <p>Type: xs:double</p> <p>Ancestor: item</p> <p>Children: None</p>
usagePrice	<p>The usage price of the Reserved Instance, per hour.</p> <p>Type: xs:double</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceCount	<p>The number of Reserved Instances purchased.</p> <p>Type: xs:integer</p> <p>Ancestor: item</p> <p>Children: None</p>

productDescription	<p>The Reserved Instance description.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
state	<p>The state of the Reserved Instance purchase.</p> <p>Type: xsd:string</p> <p>Valid Values: pending-payment active payment-failed retired</p> <p>Ancestor: item</p> <p>Children: None</p>

Examples

Example Request

This example describes Reserved Instances owned by the account.

```
https://ec2.amazonaws.com/?Action=DescribeReservedInst
```

Example Response

```
<DescribeReservedInstancesResponse xmlns="http://ec2.a
<reservedInstancesSet>
  <item>
    <reservedInstancesId>4b2293b4-5813-4cc8-9ce3-195
    <instanceType>m1.small</instanceType>
    <availabilityZone>us-east-1a</availabilityZone>
    <duration>12</duration>
    <usagePrice>0.00</usagePrice>
    <fixedPrice>0.00</fixedPrice>
    <instanceCount>19</instanceCount>
    <productDescription>m1.small offering in us-east-1a</productDescription>
    <state>Active</state>
  </item>
</reservedInstancesSet>
</DescribeReservedInstancesResponse>
```

Related Operations

- [PurchaseReservedInstancesOffering](#)
- [DescribeReservedInstancesOfferings](#)

DescribeReservedInstances

Description

Describes Reserved Instance offerings that are available for purchase. With Amazon EC2 Reserved Instances, you purchase the right to launch Amazon EC2 instances for a period of time (without getting insufficient capacity errors) and pay a lower usage rate for the actual time used. For more information about Reserved Instances, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
<i>ReservedInstancesOfferingId</i>	ID of the Reserved Instances to describe. Type: String Default: None	No
<i>InstanceType</i>	The instance type on which the Reserved Instance can be used. Type: String Default: None	No
<i>AvailabilityZone</i>	The Availability Zone in which the Reserved Instance can be used. Type: String Default: None	No
<i>ProductDescription</i>	The Reserved Instance description. Type: String Default: None	No

Response Elements

Name	Description
DescribeReservedInstancesOfferingsResponseType	<p>DescribeReservedInstancesOfferingsResponseType element.</p> <p>Type: DescribeReservedInstancesOfferingsResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservedInstancesOfferingsSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeReservedInstancesOfferingsResponseType</p> <p>Children: None</p>
reservedInstancesOfferingsSet	<p>Reserved Instances offerings set.</p> <p>Type: DescribeReservedInstancesOfferingsResponseType</p> <p>Ancestor: DescribeReservedInstancesOfferingsResponseType</p> <p>Children: item</p>
item	<p>Reserved Instance offerings set.</p> <p>Type: DescribeReservedInstancesOfferingsResponseType</p> <p>Ancestor: reservedInstancesOfferingsSet</p> <p>Children: reservedInstancesOfferingId, instanceType, availabilityZone, duration, fixedPrice, usagePrice, and productDescription</p>
reservedInstancesOfferingId	<p>The ID of the Reserved Instance offering.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>

<code>instanceType</code>	<p>The instance type on which the Reserved Instance can be used.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>availabilityZone</code>	<p>The Availability Zone in which the Reserved Instance can be used.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>duration</code>	<p>The duration of the Reserved Instance, in seconds.</p> <p>Type: xs:long</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>fixedPrice</code>	<p>The purchase price of the Reserved Instance.</p> <p>Type: xs:double</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>usagePrice</code>	<p>The usage price of the Reserved Instance, per hour.</p> <p>Type: xs:double</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>productDescription</code>	<p>The Reserved Instance description.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>

Examples

Example Request

This example describes available Reserved Instance offerings.

```
https://ec2.amazonaws.com/?Action=DescribeReservedInst
```

Example Response

```
<DescribeReservedInstancesOfferingsResponse xmlns="http://aws.amazon.com/ec2/2009-09-04">
  <reservedInstancesOfferingsSet>
    <item>
      <reservedInstancesOfferingId>4b2293b4-5813-4cc8-8f3d-000000000000</reservedInstancesOfferingId>
      <instanceType>m1.small</instanceType>
      <availabilityZone>us-east-1a</availabilityZone>
      <duration>12</duration>
      <fixedPrice>0.00</fixedPrice>
      <usagePrice>0.00</usagePrice>
      <productDescription>m1.small offering in us-east-1a</productDescription>
    </item>
  </reservedInstancesOfferingsSet>
</DescribeReservedInstancesOfferingsResponse>
```

Related Operations

- [PurchaseReservedInstancesOffering](#)
- [DescribeReservedInstances](#)

DescribeSecurityGroups

Description

Returns information about security groups that you own.

Request Parameters

Name	Description	Required
<i>GroupName.n</i>	Name of the security group. Type: String Default: Describes all groups within the account.	No

Response Elements

Name	Description
DescribeSecurityGroupsResponseType	DescribeSecurityGroupsResponseType element. Type:

DescribeSecurityGroupsResponseType

Ancestor: None

Children: requestId, securityGroupInfo

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeSecurityGroupsResponseType

Children: None

securityGroupInfo

Security group set.

Type: [SecurityGroupSetType](#)

Ancestor: DescribeSecurityGroupsResponseType

Children: item

item

Information for a security group.

Type: [SecurityGroupItemType](#)

Ancestor: securityGroupInfo

Children: ownerId, groupName, groupDescription, and ipPermissions

ownerId

AWS Access Key ID of the owner of the security group.

Type: xsd:string

Ancestor: item

Children: None

groupName

Name of the security group.

Type: xsd:string

Ancestor: item

Children: None

groupDescription

Description of the security group.

Type: xsd:string

Ancestor: item

Children: None

ipPermissions

Set of IP permissions associated with the security group.

Type: [IpPermissionSetType](#)

Ancestor: item

Children: item

item

Set of IP permissions.

Type: [IpPermissionType](#)

Ancestor: ipPermissions

Children: ipProtocol, fromPort, toPort, groups, and ipRanges

ipProtocol

IP protocol.

Type: xsd:string

Valid Values: tcp | udp | icmp

Ancestor: item

Children: None

fromPort

Start of port range for the TCP and UDP protocols, or an ICMP type number. An ICMP type number of -1 indicates a wildcard (i.e., any ICMP type number).

Type: xsd:int

Ancestor: item

Children: None

toPort

End of port range for the TCP and UDP protocols, or an

ICMP code. An ICMP code of -1 indicates a wildcard (i.e., any ICMP code).

Type: xsd:int

Ancestor: item

Children: None

groups

List of security group and user ID pairs.

Type: [UserIdGroupPairSetType](#)

Ancestor: item

Children: item

item

Information for one security group.

Type: [UserIdGroupPairType](#)

Ancestor: groups

Children: userId, groupName

userId

AWS User ID of an account. Cannot be used when specifying a CIDR IP address.

Type: xsd:string

Ancestor: item

Children: None

groupName

Name of the security group. Cannot be used when specifying a CIDR IP address.

Type: xsd:string

Ancestor: item

Children: None

ipRanges

IP ranges.

Type: [IpRangeSetType](#)

Ancestor: item

Children: item

`item`

Information for one IP range.

Type: [IpRangeItemType](#)

Ancestor: `ipRanges`

Children: `cidrIp`

`cidrIp`

CIDR range.

Type: `xsd:string`

Ancestor: `item`

Children: None

Examples

Example Request

This example returns information about two security groups that are configured for the account.

```
https://ec2.amazonaws.com/?Action=DescribeSecurityGroups
```

Example Response

```
<DescribeSecurityGroupsResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01/">  <securityGroupInfo>    <item>      <ownerId>UYY3TLBUXIE0N5NQVUUX60MPWBZIQNFM</ownerId>      <groupName>WebServers</groupName>      <groupDescription>Web Servers</groupDescription>      <ipPermissions>        <item>          <ipProtocol>tcp</ipProtocol>          <fromPort>80</fromPort>          <toPort>80</toPort>          <groups/>          <ipRanges>            <item>              <cidrIp>0.0.0.0/0</cidrIp>            </item>          </ipRanges>        </item>      </ipPermissions>    </item>  </securityGroupInfo></DescribeSecurityGroupsResponse>
```

```
<item>
<ownerId>UYY3TLBUXIE0N5NQVUUX60MPWBZIQNFM</ownerId>
<groupName>RangedPortsBySource</groupName>
<groupDescription>Group A</groupDescription>
<ipPermissions>
  <item>
    <ipProtocol>tcp</ipProtocol>
    <fromPort>6000</fromPort>
    <toPort>7000</toPort>
    <groups/>
    <ipRanges/>
  </item>
</ipPermissions>
</item>
</securityGroupInfo>
</DescribeSecurityGroupsResponse>
```

Related Operations

- [CreateSecurityGroup](#)
- [AuthorizeSecurityGroupIngress](#)
- [RevokeSecurityGroupIngress](#)
- [DeleteSecurityGroup](#)

DescribeSnapshotAttribute

Description

Returns information about an attribute of a snapshot.
Only one attribute can be specified per call.

Request Parameters

Name	Description	Required
<i>SnapshotId.n</i>	The ID of the Amazon EBS snapshot. Type: String Default: None	No
<i>Attribute=createVolumePermission</i>	Describes the create volume permissions of the snapshot. Type: String Default: None	Yes

Response Elements

Name	Description
DescribeSnapshotAttributeResponseType	DescribeSnapshotAttributeResponseType element. Type:

DescribeSnapshotAttributeResponseType

Ancestor: None

Children: requestId, snapshotId, and
createVolumePermission

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeSnapshotAttributeResponseType

Children: None

snapshotId

The ID of the Amazon EBS snapshot.

Type: xsd:string

Ancestor: `DescribeSnapshotAttributeResponseType`

Children: None

`createVolumePermission`

Create volume permission element.

Type: [`CreateVolumePermissionListType`](#)

Ancestor: `DescribeSnapshotAttributeResponseType`

Children: `item`

`item`

Volume permission item.

Type: [`CreateVolumePermissionItemType`](#)

Ancestor: `createVolumePermission`

Children: `userId`, `group`

`userId`

User ID of a user that can create volumes from the snapshot.

Type: `xsd:string`

Ancestor: item

Children: None

group

Group that is allowed to create volumes from the snapshot (currently supports "all").

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example describes permissions for the snap-78a54011 snapshot.

```
https://ec2.amazonaws.com/?Action=DescribeSnapshotAttribute&SnapshotId=snap-78a54011
```

Example Response

```
<DescribeSnapshotAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2013-02-01/">
  <snapshotId>snap-78a54011</snapshotId>
  <createVolumePermission>
    <item>
      <group>all</group>
    </item>
  </createVolumePermission>
</DescribeSnapshotAttributeResponse>
```

Related Operations

- [ModifySnapshotAttribute](#)
- [DescribeSnapshots](#)
- [ResetSnapshotAttribute](#)
- [CreateSnapshot](#)

DescribeSnapshots

Description

Returns information about Amazon EBS snapshots available to the user. Information returned includes volume ID, status, start time, progress, owner ID, volume size, and description. Snapshots available to the user include public snapshots available for any user to launch, private snapshots owned by the user making the request, and private snapshots owned by other users for which the user granted explicit create volume permissions.

The create volume permissions fall into 3 categories:

Permission	Description
public	The owner of the snapshot granted create volume permissions for the snapshot to the all group. All users have create volume permissions for these snapshots.
explicit	The owner of the snapshot granted create volume permissions to a specific user.
implicit	A user has implicit create volume permissions for all snapshots he or she owns.

The list of snapshots returned can be modified by specifying snapshot IDs, snapshot owners, or users with create volume permissions. If no options are specified, Amazon EC2 returns all snapshots for which the user has create volume permissions.

If you specify one or more snapshot IDs, only snapshots that have the specified IDs are returned. If you specify an

invalid snapshot ID, a fault is returned. If you specify a snapshot ID for which you do not have access, it will not be included in the returned results.

If you specify one or more snapshot owners, only snapshots from the specified owners and for which you have access are returned. The results can include the AWS Account IDs of the specified owners, amazon for snapshots owned by Amazon or self for snapshots that you own.

If you specify a list of restorable users, only users that have create snapshot permissions for the snapshots are returned. You can specify AWS Account IDs (if you own the snapshot(s)), self for snapshots for which you own or have explicit permissions, or all for public snapshots.

Request Parameters

Name	Description	Required
<i>SnapshotId.n</i>	<p>The ID of the Amazon EBS snapshot.</p> <p>Type: String</p> <p>Default: Describes snapshots for which you have launch permissions.</p>	No
<i>Owner</i>	<p>Returns snapshots owned by the specified owner. Multiple owners can be specified.</p> <p>Type: String</p> <p>Valid Values: self amazon AWS Account ID</p> <p>Default: None</p>	No
<i>RestorableBy</i>	<p>Account ID of a user that can create volumes from the snapshot.</p> <p>Type: String</p> <p>Default: None</p>	No

Response Elements

Name	Description
DescribeSnapshotsResponseType	DescribeSnapshotsResponseType element. Type:

DescribeSnapshotsResponseType

Ancestor: None

Children: requestId, snapshotSet

requestId

The ID of the request.

Type: xsd:string

Ancestor: DescribeSnapshotsResponseType

Children: None

snapshotSet

Snapshot set.

Type: [DescribeSnapshotsSetResponseType](#)

Ancestor: DescribeSnapshotsResponseType

Children: item

item

Information for a snapshot.

Type: [DescribeSnapshotsSetItemResponseType](#)

Ancestor: snapshotSet

Children: snapshotId, volumeId, status, startTime, progress, ownerId, and description

snapshotId

The ID of the snapshot.

Type: xsd:string

Ancestor: item

Children: None

volumeId

The ID of the volume.

Type: xsd:string

Ancestor: item

Children: None

status

Snapshot state (e.g.,

Type: xsd:string

Ancestor: item

Children: None

startTime

Time stamp when the snapshot was initiated.

Type: xsd:dateTime

Ancestor: item

Children: None

progress

The progress of the snapshot, in percentage.

Type: xsd:string

Ancestor: item

Children: None

ownerId

AWS Access Key ID of the user who owns the snapshot.

Type: xsd:string

Ancestor: item

Children: None

description

Description of the snapshot.

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example describes snapshot snap-78a54011.

```
https://ec2.amazonaws.com/?Action=DescribeSnapshots&Sr
```

Example Response

```
<DescribeSnapshotsResponse xmlns="http://ec2.amazonaws.com/doc/2008-05-07/">  <snapshotSet>    <item>      <snapshotId>snap-78a54011</snapshotId>      <volumeId>vol-4d826724</volumeId>      <status>pending</status>      <startTime>2008-05-07T12:51:50.000Z</startTime>      <progress>80%</progress>      <ownerId>218213537122</ownerId>      <volumeSize>10</volumeSize>      <description>Daily Backup</description>    </item>  </snapshotSet></DescribeSnapshotsResponse>
```

Related Operations

- [CreateSnapshot](#)
- [DeleteSnapshot](#)

DescribeVolumes

Description

Describes the specified Amazon EBS volumes that you own. If you do not specify one or more volume IDs, Amazon EBS describes all volumes that you own. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
<i>VolumeId.n</i>	The ID of the volume to list. Type: String Default: Describes all volumes that you own.	No

Response Elements

Name	Description
DescribeVolumesResponseType	<p>DescribeVolumesResponseType element.</p> <p>Type: DescribeVolumesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, volumeSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeVolumesResponseType</p> <p>Children: None</p>
volumeSet	<p>Volume set.</p> <p>Type: DescribeVolumesSetResponseType</p> <p>Ancestor: DescribeVolumesResponseType</p> <p>Children: item</p>
item	<p>Information for a volume.</p> <p>Type: DescribeVolumesSetItemResponseType</p> <p>Ancestor: volumeSet</p> <p>Children: volumeId, size, snapshotId, availabilityZone, status, createTime, and attachmentSet</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
size	<p>The size of the volume, in GiBs.</p> <p>Type: xsd:string</p>

	<p>Ancestor: <code>item</code> Children: None</p>
<code>snapshotId</code>	<p>Snapshot from which the volume was created (optional). Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>availabilityZone</code>	<p>Availability Zone in which the volume was created. Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>status</code>	<p>Volume state (e.g., Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>createTime</code>	<p>Time stamp when volume creation was initiated. Type: <code>xsd:dateTime</code> Ancestor: <code>item</code> Children: None</p>
<code>attachmentSet</code>	<p>Attachment set. Type: <code>AttachmentSetResponseType</code> Ancestor: <code>item</code> Children: <code>item</code></p>
<code>item</code>	<p>Information for a attachment set. Type: <code>AttachmentSetItemResponseType</code> Ancestor: <code>attachmentSet</code> Children: <code>volumeId</code>, <code>instanceId</code>, <code>device</code>, <code>status</code>, and <code>attachTime</code></p>
<code>volumeId</code>	The ID of the volume.

	<p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
device	<p>Specifies how the device is exposed to the instance (e.g., /dev/sdh).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
status	<p>Attachment state.</p> <p>Type: xsd:string</p> <p>Valid Values: attaching attached detaching detached</p> <p>Ancestor: item</p> <p>Children: None</p>
attachTime	<p>Time stamp when the association was created.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>

Examples

Example Request

This example describes all volumes associated with your account.

```
https://ec2.amazonaws.com/?Action=DescribeVolumes&Auth
```

Example Response

```
<DescribeVolumesResponse xmlns="http://ec2.amazonaws.com/doc/2008-05-08/">\n<volumeSet>\n    <item>\n        <volumeId>vol-4282672b</volumeId>\n        <size>800</size>\n        <snapshotId/>\n        <availabilityZone>us-east-1a</availabilityZone>\n        <status>in-use</status>\n        <createTime>2008-05-07T11:51:50.000Z</createTime>\n        <attachmentSet>\n            <item>\n                <volumeId>vol-4282672b</volumeId>\n                <instanceId>i-6058a509</instanceId>\n                <device>/dev/sdh</device>\n                <status>attached</status>\n                <attachTime>2008-05-07T12:51:50.000Z</attachTi\n            </item>\n        </attachmentSet>\n    </item>\n</volumeSet>\n</DescribeVolumesResponse>
```


Related Operations

- [CreateSnapshot](#)
- [DeleteSnapshot](#)

DetachVolume

Description

Detaches an Amazon EBS volume from an instance. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide](#).



Important

Make sure to unmount any file systems on the device within your operating system before detaching the volume. Failure to unmount file systems, or otherwise properly release the device from use, can result in lost data and will corrupt the file system.

Request Parameters

Name	Description	Required
<i>VolumeId</i>	The ID of the volume. Type: String Default: None	Yes
<i>InstanceId</i>	The ID of the instance. Type: String Default: None	No
<i>Device</i>	The device name. Type: String Default: None	No
<i>Force</i>	Forces detachment if the previous detachment attempt did not occur cleanly (logging into an instance, unmounting the volume, and detaching normally). This option can lead to data loss or a corrupted file system. Use this option only as a last resort to detach a volume from a failed instance. The instance will not have an opportunity to flush file system caches nor file system meta data. If you use this option, you must perform file system check and repair procedures. Type: Boolean Default: None	No

Response Elements

Name	Description
DetachVolumeResponseType	<p>DetachVolumeResponseType element.</p> <p>Type: DetachVolumeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, volumeId, instanceId, device, status, and attachTime</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p> <p>Children: None</p>
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p> <p>Children: None</p>
device	<p>The device as it is exposed to the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p> <p>Children: None</p>
status	<p>Attachment state (e.g.,</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p>

	Children: None
attachTime	<p>Time stamp when the association was created.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: <code>DetachVolumeResponseType</code></p> <p>Children: None</p>

Examples

Example Request

This example detaches volume vol-4d826724.

```
https://ec2.amazonaws.com/?Action=DetachVolume&VolumeId=vol-4d826724&InstanceId=i-6058a509&AuthParams
```

Example Response

```
<DetachVolumeResponse xmlns="http://ec2.amazonaws.com">
  <volumeId>vol-4d826724</volumeId>
  <instanceId>i-6058a509</instanceId>
  <device>/dev/sdh</device>
  <status>detaching</status>
  <attachTime>2008-05-08T11:51:50.000Z</attachTime>
</DetachVolumeResponse>
```

Related Operations

- [CreateVolume](#)
- [DeleteVolume](#)
- [DescribeVolumes](#)
- [AttachVolume](#)

DisassociateAddress

Description

Disassociates the specified elastic IP address from the instance to which it is assigned. This is an idempotent operation. If you enter it more than once, Amazon EC2 does not return an error.

Request Parameters

Name	Description	Required
<i>PublicIp</i>	IP address that you are disassociating from the instance. Type: String Default: None	Yes

Response Elements

Name	Description
DisassociateAddressResponseType	DisassociateAddressResponseType element. Type:

DisassociateAddressResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: DisassociateAddressResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: DisassociateAddressResponseType

Children: None

Examples

Example Request

This example disassociates the 67.202.55.255 IP address from the instance to which it is assigned.

```
https://ec2.amazonaws.com/?Action=DisassociateAddress&
```

Example Response

```
<DisassociateAddressResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <return>true</return>
</DisassociateAddressResponse>
```

Related Operations

- [AllocateAddress](#)
- [DescribeAddresses](#)
- [ReleaseAddress](#)
- [AssociateAddress](#)

GetConsoleOutput

Description

Retrieves console output for the specified instance.

Instance console output is buffered and posted shortly after instance boot, reboot, and termination. Amazon EC2 preserves the most recent 64 KB output which will be available for at least one hour after the most recent post.

Request Parameters

Name	Description	Required
<i>InstanceId</i>	ID of the instance for which you want console output. Type: String Default: None	Yes

Response Elements

Name	Description
GetConsoleOutputResponseType	GetConsoleOutputResponseType element. Type:

[GetConsoleOutputResponseType](#)

Ancestor: None

Children: requestId, instanceId, timestamp, and output

requestId

The ID of the request.

Type: xsd:string

Ancestor: GetConsoleOutputResponseType

Children: None

instanceId

The instance ID.

Type: xsd:string

Ancestor: GetConsoleOutputResponseType

Children: None

timestamp

The time the output was last updated.

Type: xsd:dateTime

Ancestor: GetConsoleOutputResponseType

Children: None

output

The console output, Base64 encoded.

Type: xsd:string

Ancestor: GetConsoleOutputResponseType

Children: None

Examples

Example Request

This example retrieves the console output for the i-10a64379 Linux and UNIX instance.

<https://ec2.amazonaws.com/?Action=GetConsoleOutput&InstanceId=...>

Example Response

```
<GetConsoleOutputResponse xmlns="http://ec2.amazonaws.com">
  <instanceId>i-28a64341</instanceId>
  <timestamp>2007-01-03 15:00:00</timestamp>
  <output>TGludXggdmVyc2lvbiAyLjYuMTYteGVuVSAoYnVpbGR1
YyB2ZXJzaW9uIDQuMC4xIDIwMDUwNzI3IChSZWQgSGF0IDQuMC4xL1
dCAyNiAwODo0MToyNiBTQVNUIDIwMDYKQklPUy1wcm92aWRlZCBwa1
ZW46IDAwMDAwMDAwMDAwMDAgLSAwMDAwMDZhNDAwMDAwIC
R0hNRU0gYXZhaWxhYmxlLgo3MjdNQiBMT1dNRU0gYXZhaWxhYmxlLc
YmxlKSBwcm90ZWN0aW9u0iBhY3RpdmUKSVJRIGxvY2t1cCBkZXRLY3
bHQgMSB6b25lbGlzdHMKS2VybmVsIGNvbW1hbmqgbGluZTogcm9vdE
bmFibGluZyBmYXN0IEZQVSbzYXZlIGFuZCByZXN0b3JlLi4uIGRvb
</GetConsoleOutputResponse>
```

Related Operations

- [RunInstances](#)

GetPasswordData

Description

Retrieves the encrypted administrator password for the instances running Windows.



Note

The Windows password is only generated the first time an AMI is launched. It is not generated for rebundled AMIs or after the password is changed on an instance.

The password is encrypted using the key pair that you provided.

Request Parameters

Name	Description	Required
<i>InstanceId</i>	The ID of the instance for which to get the password. Type: String Default: None	Yes

Response Elements

Name	Description
GetPasswordDataResponseType	GetPasswordDataResponseType element. Type:

GetPasswordDataResponseType

Ancestor: None

Children: requestId, instanceId, timestamp, and passwordData

requestId

The ID of the request.

Type: xsd:string

Ancestor: GetPasswordDataResponseType

Children: None

instanceId

The ID of the instance.

Type: xsd:string

Ancestor: GetPasswordDataResponseType

Children: None

timestamp

The time the data was last updated.

Type: xsd:dateTime

Ancestor: GetPasswordDataResponseType

Children: None

passwordData

The password of the instance.

Type: xsd:string

Ancestor: GetPasswordDataResponseType

Children: None

Examples

Example Request

This example returns the encrypted version of the administrator password for the i-2574e22a instance.

```
https://ec2.amazonaws.com/?Action=GetPasswordData&Inst
```

Example Response

```
<GetPasswordDataResponse xmlns="http://ec2.amazonaws.com/2009-04-04">
  <instanceId>i-2574e22a</instanceId>
  <timestamp>2009-10-24 15:00:00</timestamp>
  <passwordData>TGludXggdmVyc2lvbiAyLjYuMTYteGVuVSAoYr...
```

Related Operations

- [RunInstances](#)

ModifyImageAttribute

Description

Modifies an attribute of an AMI.

Request Parameters

Name	Description	Required
<i>ImageId</i>	The AMI ID. Type: String Default: None	Yes
<i>UserId</i>	AWS Access Key ID. Type: String Default: None	Yes
<i>UserGroup</i>	Name of the group. Currently supports "all." Type: String Default: None	Yes
<i>ProductCode.n</i>	Product code. Type: String Default: None	No
<i>Attribute</i>	Specifies the attribute to modify. Type: String Valid Values: launchPermission productCodes Default: None	
<i>OperationType</i>	Specifies the operation to perform on the attribute. Type: String Valid Values: add remove Default: None	

Response Elements

Name	Description
ModifyImageAttributeResponseType	ModifyImageAttributeResponseType element. Type:

ModifyImageAttributeResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: ModifyImageAttributeResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: ModifyImageAttributeResponseType

Children: None

Examples

Example Request

This example makes this a public AMI and grants specific permissions to a user.

```
https://ec2.amazonaws.com/?Action=ModifyImageAttribute
```

Example Response

```
<ModifyImageAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2011-08-01">
  <return>true</return>
</ModifyImageAttributeResponse>
```

Example Request

The following example adds the 774F4FF8 product code to the ami-2bb65342 AMI:

```
https://ec2.amazonaws.com/?Action=ModifyImageAttribute
```

Example Response

```
<ModifyImageAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2011-08-01">
  <return>true</return>
```

```
</ModifyImageAttributeResponse>
```

Related Operations

- [ResetImageAttribute](#)
- [DescribeImageAttribute](#)

ModifySnapshotAttribute

Description

Adds or remove permission settings for the specified snapshot.

Request Parameters

Name	Description	Required
<i>SnapshotId</i>	The ID of the snapshot. Type: String Default: None	Yes
<i>UserId</i>	User ID of a user that can create volumes from the snapshot. Type: String Default: None	No
<i>UserGroup</i>	Group that is allowed to create volumes from the snapshot (currently supports "all"). Type: String Default: None	No
<i>Attribute</i>	Specifies the attribute to modify. Type: String Valid Values: <code>createVolumePermission</code> Default: None	Yes
<i>OperationType</i>	Specifies the operation to perform on the attribute. Type: String Valid Values: <code>add remove</code> Default: None	Yes
<i>Attribute=createVolumePermission</i>	Modifies the create volume permissions of the snapshot. Type: String Default: None	Yes

Response Elements

Name	Description
ModifySnapshotAttributeResponseType	ModifySnapshotAttributeResponseType element. Type:

ModifySnapshotAttributeResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: ModifySnapshotAttributeResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: ModifySnapshotAttributeResponseType

Children: None

Examples

Example Request

This example makes the snap-78a54011 snapshot public.

```
https://ec2.amazonaws.com/?Action=ModifySnapshotAttribute&SnapshotId=snap-78a54011&Public=true
```

Example Response

```
<ModifySnapshotAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01/">
<return>true</return>
</ModifySnapshotAttributeResponse>
```

Related Operations

- [DescribeSnapshotAttribute](#)
- [DescribeSnapshots](#)
- [ResetSnapshotAttribute](#)
- [CreateSnapshot](#)

MonitorInstances

Description

Enables monitoring for a running instance. For more information, refer to the *Amazon CloudWatch Developer Guide*.

Request Parameters

Name	Description	Required
<i>InstanceId.n</i>	Instance ID. Type: String Default: None	Yes

Response Elements

Name	Description
MonitorInstancesResponseType	MonitorInstancesResponseType element. Type:

MonitorInstancesResponseType

Ancestor: None

Children: requestId, instancesSet

requestId

The ID of the request.

Type: xsd:string

Ancestor: MonitorInstancesResponseType

Children: None

instancesSet

Monitor instance response set.

Type: [MonitorInstancesResponseSetType](#)

Ancestor: MonitorInstancesResponseType

Children: item

item

Instance Item.

Type: [MonitorInstancesResponseSetItemType](#)

Ancestor: instancesSet

Children: instanceId, monitoring

instanceId

Instance ID.

Type: xsd:string

Ancestor: item

Children: None

monitoring

Monitoring information.

Type: [InstanceMonitoringStateType](#)

Ancestor: item

Children: state

state

State of monitoring for the instance.

Type: xsd:string

Valid Values: monitoring-enabled (enabled) | monitoring-pending (pending) | monitoring-disabled (disabled)

Ancestor: monitoring

Children: None

Examples

Example Request

This example enables monitoring for i-43a4412a and i-23a3397d.

```
https://ec2.amazonaws.com/?Action=MonitorInstances&Ins
```

Example Response

```
<MonitorInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">  <instancesSet>    <item>      <instanceId>i-43a4412a</instanceId>      <monitoring>        <state>pending</state>      </monitoring>    </item>    <item>      <instanceId>i-23a3397d</instanceId>      <monitoring>        <state>pending</state>      </monitoring>    </item>  </instancesSet></MonitorInstancesResponse>
```

Related Operations

- [UnmonitorInstances](#)
- [RunInstances](#)

PurchaseReservedInstance

Description

Purchases a Reserved Instance for use with your account. With Amazon EC2 Reserved Instances, you purchase the right to launch Amazon EC2 instances for a period of time (without getting insufficient capacity errors) and pay a lower usage rate for the actual time used. For more information about Reserved Instances, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
<i>ReservedInstancesOfferingId.n</i>	The offering ID of the Reserved Instance to purchase. Type: String Default: None	Yes
<i>InstanceCount.n</i>	The number of Reserved Instances to purchase. Type: Integer Default: 1	No

Response Elements

Name	Description
PurchaseReservedInstancesOfferingResponseType	<p>PurchaseReservedInstancesOfferingResponseType element.</p> <p>Type: PurchaseReservedInstancesOfferingResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservedInstancesId</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: PurchaseReservedInstancesOfferingResponseType</p> <p>Children: None</p>
reservedInstancesId	<p>The IDs of the purchased Reserved Instances.</p> <p>Type: xsd:string</p> <p>Ancestor: PurchaseReservedInstancesOfferingResponseType</p> <p>Children: None</p>

Examples

Example Request

This example purchases Reserved Instances.

```
https://ec2.amazonaws.com/?Action=PurchaseReservedInst
```

Example Response

```
<PurchaseReservedInstancesOfferingResponse xmlns="http://  
    <reservedInstancesId>reservation-1001001</reservedInstan  
    </PurchaseReser
```

Related Operations

- [DescribeReservedInstancesOfferings](#)
- [DescribeReservedInstances](#)

RebootInstances

Description

Requests a reboot of one or more instances. This operation is asynchronous; it only queues a request to reboot the specified instance(s). The operation will succeed if the instances are valid and belong to you. Requests to reboot terminated instances are ignored.



Note

If a Linux/UNIX instance does not cleanly shut down within four minutes, Amazon EC2 will perform a hard reboot.

Request Parameters

Name	Description	Required
<i>InstanceId.n</i>	One or more instance IDs. Type: String Default: None	Yes

Response Elements

Name	Description
RebootInstancesResponseType	RebootInstancesResponseType element. Type:

RebootInstancesResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: RebootInstancesResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: RebootInstancesResponseType

Children: None

Examples

Example Request

This example reboots an instance.

<https://ec2.amazonaws.com/?Action=RebootInstances&AuthType>

Example Response

```
<RebootInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">\n    <return>true</return>\n</RebootInstancesResponse>
```

Related Operations

- [RunInstances](#)

RegisterImage

Description

Registers an AMI with Amazon EC2. Images must be registered before they can be launched. To launch instances, use the `RunInstances` operation.

Each AMI is associated with an unique ID which is provided by the Amazon EC2 service through the `RegisterImage` operation. During registration, Amazon EC2 retrieves the specified image manifest from Amazon S3 and verifies that the image is owned by the user registering the image.

The image manifest is retrieved once and stored within the Amazon EC2. Any modifications to an image in Amazon S3 invalidates this registration. If you make changes to an image, deregister the previous image and register the new image. To deregister an image, use the `DeregisterImage` operation.

Request Parameters

Name	Description	Required
<i>ImageLocation</i>	Full path to your AMI manifest in Amazon S3 storage. Type: String Default: None	Yes

Response Elements

Name	Description
RegisterImageResponseType	RegisterImageResponseType element. Type:

RegisterImageResponseType

Ancestor: None

Children: requestId, imageId

requestId

The ID of the request.

Type: xsd:string

Ancestor: RegisterImageResponseType

Children: None

imageId

Unique ID of the newly registered machine image.

Type: xsd:string

Ancestor: RegisterImageResponseType

Children: None

Examples

Example Request

This example registers the AMI specified in the `image.manifest.xml` manifest file.

```
https://ec2.amazonaws.com/?Action=RegisterImage&ImageId
```

Example Response

```
<RegisterImageResponse xmlns="http://ec2.amazonaws.com">
  <imageId>ami-61a54008</imageId>
</RegisterImageResponse>
```

Related Operations

- [DescribeImages](#)
- [DeregisterImage](#)

ReleaseAddress

Description

Releases an elastic IP address associated with your account.

If you run this operation on an elastic IP address that is already released, the address might be assigned to another account which will cause Amazon EC2 to return an error.



Note

Releasing an IP address automatically disassociates it from any instance with which it is associated. To disassociate an IP address without releasing it, use the `DisassociateAddress` operation.



Important

After releasing an elastic IP address, it is released to the IP address pool and might no longer be available to your account. Make sure to update your DNS records and any servers or devices that communicate with the address.

Request Parameters

Name	Description	Required
<i>PublicIp</i>	The IP address that you are releasing from your account. Type: String Default: None	Yes

Response Elements

Name	Description
ReleaseAddressResponseType	ReleaseAddressResponseType element. Type:

ReleaseAddressResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: ReleaseAddressResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: ReleaseAddressResponseType

Children: None

Examples

Example Request

This example releases an elastic IP address associated with the account.

```
https://ec2.amazonaws.com/?Action=ReleaseAddress&PublicIp=54.177.111.11
```

Example Response

```
<ReleaseAddressResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">\n    <return>true</return>\n</ReleaseAddressResponse>
```

Related Operations

- [AllocateAddress](#)
- [DescribeAddresses](#)
- [AssociateAddress](#)
- [DisassociateAddress](#)

ResetImageAttribute

Description

Resets an attribute of an AMI to its default value.



Note

The productCodes attribute cannot be reset.

Request Parameters

Name	Description	Required
<i>ImageId</i>	ID of the AMI on which the attribute will be reset. Type: String Default: None	Yes
<i>Attribute</i>	Specifies the attribute to reset. Type: String Valid Values: launchPermission productCodes Default: None	

Response Elements

Name	Description
ResetImageAttributeResponseType	ResetImageAttributeResponseType element. Type:

ResetImageAttributeResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: ResetImageAttributeResponseType

Children: None

return

Indicates whether the attribute successfully reset.

Type: xsd:boolean

Ancestor: ResetImageAttributeResponseType

Children: None

Examples

Example Request

This example resets the launchPermission attribute.

```
https://ec2.amazonaws.com/?Action=ResetImageAttribute&
```

Example Response

```
<ResetImageAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2011-08-01">
  <return>true</return>
</ResetImageAttributeResponse>
```

Related Operations

- [ModifyImageAttribute](#)
- [DescribeImageAttribute](#)

ResetSnapshotAttribute

Description

Resets permission settings for the specified snapshot.

Request Parameters

Name	Description	Required
<i>SnapshotId</i>	The ID of the snapshot. Type: String Default: None	No
<i>Attribute=createVolumePermission</i>	Resets the create volume permissions of the snapshot. Type: String Default: None	Yes

Response Elements

Name	Description
ResetSnapshotAttributeResponseType	ResetSnapshotAttributeResponseType element. Type:

ResetSnapshotAttributeResponseType

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: ResetSnapshotAttributeResponseType

Children: None

return

Specifies whether the snapshot permissions were reset.

Type: xsd:boolean

Ancestor: ResetSnapshotAttributeResponseType

Children: None

Examples

Example Request

This example resets the permissions for snap-78a54011, making it a private snapshot that can only be used by the account that created it.

```
https://ec2.amazonaws.com/?Action=ResetSnapshotAttribute
```

Example Response

```
<ResetSnapshotAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2013-02-01/">
  <return>true</return>
</ResetSnapshotAttributeResponse>
```

Related Operations

- [ModifySnapshotAttribute](#)
- [DescribeSnapshotAttribute](#)
- [DescribeSnapshots](#)
- [CreateSnapshot](#)

RevokeSecurityGroupIngr

Description

Revokes permissions from a security group. The permissions used to revoke must be specified using the same values used to grant the permissions.

Permissions are specified by IP protocol (TCP, UDP, or ICMP), the source of the request (by IP range or an Amazon EC2 user-group pair), the source and destination port ranges (for TCP and UDP), and the ICMP codes and types (for ICMP).

Permission changes are quickly propagated to instances within the security group. However, depending on the number of instances in the group, a small delay is might occur.

Request Parameters

Name	Description	Required
<i>UserId</i>	AWS Access Key ID. Type: String Default: None	Yes
<i>GroupName</i>	Name of the group to modify. Type: String Default: None	Yes
<i>IpProtocol</i>	IP protocol. Type: String Valid Values: <code>tcp</code> <code>udp</code> <code>icmp</code> Default: None	Yes
<i>FromPort</i>	Start of port range for the TCP and UDP protocols, or an ICMP type number. An ICMP type number of -1 indicates a wildcard (i.e., any ICMP type number). Type: Integer Default: None	Yes
<i>ToPort</i>	End of port range for the TCP and UDP protocols, or an ICMP code. An ICMP code of -1 indicates a wildcard (i.e., any ICMP code). Type: Integer Default: None	Yes
<i>SourceSecurityGroupOwnerId</i>	AWS User ID of an account. Cannot be used when specifying a CIDR IP address. Type: String Default: None	Yes
<i>SourceSecurityGroupName</i>	Name of the security group. Cannot be used when specifying a	Yes

	CIDR IP address. Type: String Default: None	
<i>CidrIp</i>	CIDR range. Type: String Default: None Constraints: Valid CIDR IP address range.	Yes

Response Elements

Name	Description
RevokeSecurityGroupIngressResponseType	RevokeSecurityGroupIngressResponseType element. Type:

[RevokeSecurityGroupIngressResponseType](#)

Ancestor: None

Children: requestId, return

requestId

The ID of the request.

Type: xsd:string

Ancestor: RevokeSecurityGroupIngressResponseType

Children: None

return

Returns

Type: xsd:boolean

Ancestor: RevokeSecurityGroupIngressResponseType

Children: None

Examples

Example Request

This example revokes TCP port 80 access from the 205.192.0.0/16 address range for the `websrv` security group.

```
https://ec2.amazonaws.com/?Action=RevokeSecurityGroup  
&AuthParams
```

Example Response

```
<RevokeSecurityGroupIngressResponse xmlns="http://ec2.  
    <return>true</return>  
</RevokeSecurityGroupIngressResponse>
```

Related Operations

- [CreateSecurityGroup](#)
- [DescribeSecurityGroups](#)
- [AuthorizeSecurityGroupIngress](#)
- [DeleteSecurityGroup](#)

RunInstances

Description

Launches a specified number of instances of an AMI for which you have permissions.

If Amazon EC2 cannot launch the minimum number AMIs you request, no instances will be launched. If there is insufficient capacity to launch the maximum number of AMIs you request, Amazon EC2 launches the minimum number specified for each AMI and allocate the remaining available instances using round robin.

In the following example, Libby generates a request to launch two images (database and web_server):

1. Libby runs the RunInstances operation to launch database instances (min. 10, max. 15) and web_server instances (min. 30, max. 40).

Because there are currently 30 instances available and Libby needs a minimum of 40, no instances are launched.

2. Libby adjusts the number of instances she needs and runs the RunInstances operation to launch database instances (min. 5, max. 10) and web_server instances (min. 20, max. 40).

Amazon EC2 launches the minimum number of instances for each AMI (5 database, 20 web_server).

The remaining 5 instances are allocated using round robin.

3. Libby adjusts the number of instances she needs and runs the RunInstances operation again to launch database instances (min. 5, max. 10) and web_server instances (min. 20, max. 40).



Note

Every instance is launched in a security group (created using the CreateSecurityGroup operation).

You can provide an optional key pair ID for each image in the launch request (created using the CreateKeyPair operation). All instances that are created from images that use this key pair will have access to the associated public key at boot. You can use this key to provide secure access to an instance of an image on a per-instance basis. Amazon EC2 public images use this feature to provide secure access without passwords.



Important

Launching public images without a key pair ID will leave them inaccessible.

The public key material is made available to the instance at boot time by placing it in the `openssh_id.pub` file on a logical device that is exposed to the instance as `/dev/sda2` (the instance store). The format of this file is suitable for use as an entry within `~/.ssh/authorized_keys` (the OpenSSH format). This can be done at boot (e.g., as part of `rc.local`) allowing for secure access without passwords.

Optional user data can be provided in the launch request. All instances that collectively comprise the launch request have access to this data. For more information, go [here](#).

[Amazon Elastic Compute Cloud Developer Guide](#)



Note

If any of the AMIs have a product code attached for which the user has not subscribed, the `RunInstances` call will fail.



Important

We strongly recommend using the 2.6.18 Xen stock kernel with High-CPU and High-Memory instances. Although the default Amazon EC2 kernels will work, the new kernels provide greater stability and performance for these instance types. For more information about kernels, go the [Amazon Elastic Compute Cloud Developer Guide](#).

Request Parameters

Name	Description	Required
<i>ImageId</i>	Unique ID of a machine image, returned by a call to Type: String Default: None	Yes
<i>MinCount</i>	Minimum number of instances to launch. If the value is more than Amazon EC2 can launch, no instances are launched at all. Type: Integer Default: None Constraints: Between 1 and the maximum number allowed for your account (default: 20).	Yes
<i>MaxCount</i>	Maximum number of instances to launch. If the value is more than Amazon EC2 can launch, the largest possible number above minCount will be launched instead. Type: Integer Default: None Constraints: Between 1 and the maximum number allowed for your account (default: 20).	Yes
<i>KeyName</i>	The name of the key pair. Type: String Default: None	No
<i>SecurityGroup</i>	Name of the security group. Type: String Default: None	No
<i>AdditionalInfo</i>	Specifies additional information to make available to the instance(s). Type: String	No

	Default: None	
<i>UserData</i>	MIME, Base64-encoded user data. Type: String Default: None	No
<i>AddressingType</i>	Deprecated. Type: String Default: None	No
<i>InstanceType</i>	Specifies the instance type. Type: String Valid Values: m1.small m1.large m1.xlarge c1.medium c1.xlarge m2.2xlarge m2.4xlarge Default: m1.small	No
<i>Placement.AvailabilityZone</i>	Specifies the placement constraints (Availability Zones) for launching the instances. Type: String Default: Amazon EC2 selects an Availability Zone.	No
<i>KernelId</i>	The ID of the kernel with which to launch the instance. Type: String Default: None	No
<i>RamdiskId</i>	The ID of the RAM disk with which to launch the instance. Some kernels require additional drivers at launch. Check the kernel requirements for information on whether you need to specify a RAM disk. To find kernel requirements, go to the Resource Center and search for the kernel ID. Type: String Default: None	No
<i>BlockDeviceMapping.VirtualName</i>	The virtual name. Type: String Default: None	No

<i>BlockDeviceMapping.DeviceName</i>	The device name (e.g., /dev/sdh). Type: String Default: None	No
<i>Monitoring.Enabled</i>	Enables monitoring for the instance. Type: Boolean Default: Disabled	No
<i>SubnetId</i>	Specifies the subnet ID within which to launch the instance(s) for Amazon Virtual Private Cloud. Type: String Default: None	No

Response Elements

Name	Description
RunInstancesResponseType	<p>RunInstancesResponseType element.</p> <p>Type: RunInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservationId, ownerId, groupSet, instancesSet, and requesterId</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: None</p>
reservationId	<p>Unique ID of the reservation.</p> <p>Type: xsd:string</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: None</p>
ownerId	<p>AWS Access Key ID of the user who owns the reservation.</p> <p>Type: xsd:string</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: None</p>
groupSet	<p>Group set.</p> <p>Type: GroupSetType</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: item</p>
item	<p>Group set item.</p> <p>Type: GroupItemType</p> <p>Ancestor: groupSet</p>

	Children: <code>groupId</code>
<code>groupId</code>	<p>Name of the security group.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>instancesSet</code>	<p>Instance set.</p> <p>Type: RunningInstancesSetType</p> <p>Ancestor: <code>RunInstancesResponseType</code></p> <p>Children: <code>item</code></p>
<code>item</code>	<p>Running instance set item.</p> <p>Type: RunningInstancesItemType</p> <p>Ancestor: <code>instancesSet</code></p> <p>Children: <code>instanceId</code>, <code>imageId</code>, <code>instanceState</code>, <code>privateDnsName</code>, <code>dnsName</code>, <code>reason</code>, <code>keyName</code>, <code>amiLaunchIndex</code>, <code>productCodes</code>, <code>instanceType</code>, <code>launchTime</code>, <code>placement</code>, <code>kernelId</code>, <code>ramdiskId</code>, <code>platform</code>, <code>monitoring</code>, <code>subnetId</code>, <code>vpcId</code>, <code>privateIpAddress</code>, and <code>ipAddress</code></p>
<code>instanceId</code>	<p>Unique ID of the instance launched.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>imageId</code>	<p>Image ID of the AMI used to launch the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>instanceState</code>	<p>The current state of the instance.</p> <p>Type: InstanceStateType</p> <p>Ancestor: <code>item</code></p> <p>Children: <code>code</code>, <code>name</code></p>

code	<p>A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:</p> <p>Type: xsd:int</p> <p>Ancestor: <code>instanceState</code></p> <p>Children: None</p>
name	<p>The current state of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>instanceState</code></p> <p>Children: None</p>
<code>privateDnsName</code>	<p>The private DNS name assigned to the instance. This DNS name can only be used inside the Amazon EC2 network. This element remains empty until the instance enters a running state.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>dnsName</code>	<p>The public DNS name assigned to the instance. This DNS name is contactable from outside the Amazon EC2 network. This element remains empty until the instance enters a running state.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
reason	<p>Reason for the most recent state transition. This might be an empty string.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>keyName</code>	<p>If this instance was launched with an associated key pair, this displays the key pair name.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p>

	Children: None
amiLaunchIndex	<p>The AMI launch index, which can be used to find this instance within the launch group. For more information, go to the Metadata section of the</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
productCodes	<p>Product codes attached to this instance.</p> <p>Type: ProductCodesSetType</p> <p>Ancestor: item</p> <p>Children: item</p>
item	<p>Information for one product code.</p> <p>Type: ProductCodesSetItemType</p> <p>Ancestor: productCodes</p> <p>Children: productCode</p>
productCode	<p>Product code.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceType	<p>The instance type.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
launchTime	<p>The time the instance launched.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
placement	The location where the instance launched.

	<p>Type: PlacementResponseType</p> <p>Ancestor: <code>item</code></p> <p>Children: <code>availabilityZone</code></p>
<code>availabilityZone</code>	<p>Returns the Availability Zones of the instances.</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>placement</code></p> <p>Children: None</p>
<code>kernelID</code>	<p>Optional. Kernel associated with this instance.</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>ramdiskID</code>	<p>Optional. RAM disk associated with this instance.</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>platform</code>	<p>Platform of the instance (e.g., Windows).</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>monitoring</code>	<p>Specifies whether monitoring is enabled for the instance.</p> <p>Type: InstanceMonitoringStateType</p> <p>Ancestor: <code>item</code></p> <p>Children: <code>state</code></p>
<code>state</code>	<p>State of monitoring for the instance.</p> <p>Type: <code>xsd:string</code></p> <p>Valid Values: <code>monitoring-enabled</code> (enabled) <code>monitoring-pending</code> (pending) <code>monitoring-disabled</code> (disabled)</p> <p>Ancestor: <code>monitoring</code></p>

	<p>Children: None</p>
subnetId	<p>Specifies the subnet ID in which the instance is running (Amazon Virtual Private Cloud).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
vpcId	<p>Specifies the VPC in which the instance is running (Amazon Virtual Private Cloud).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
privateIpAddress	<p>Specifies the private IP address that is assigned to the instance (Amazon VPC).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
ipAddress	<p>Specifies the IP address of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
requesterId	<p>ID of the requester.</p> <p>Type: xsd:string</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: None</p>

Examples

Example Request

This example launches three instances of the ami-60a54009 AMI.

```
https://ec2.amazonaws.com/?Action=RunInstances&ImageId=ami-60a54009&MinCount=3&MaxCount=3
```

Example Response

```
<RunInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <reservationId>r-47a5402e</reservationId>
  <ownerId>AIDADH4IGTRXXKCD</ownerId>
  <groupSet>
    <item>
      <groupId>default</groupId>
    </item>
  </groupSet>
  <instancesSet>
    <item>
      <instanceId>i-2ba64342</instanceId>
      <imageId>ami-60a54009</imageId>
      <instanceState>
        <code>0</code>
        <name>pending</name>
      </instanceState>
      <privateDnsName></privateDnsName>
      <dnsName></dnsName>
      <keyName>example-key-name</keyName>
      <amiLaunchIndex>0</amiLaunchIndex>
    </item>
  </instancesSet>
</RunInstancesResponse>
```

```
<instanceType>m1.small</instanceType>
<launchTime>2007-08-07T11:51:50.000Z</launchTime>
<placement>
    <availabilityZone>us-east-1b</availabilityZone>
</placement>
<monitoring>
    <enabled>true</enabled>
</monitoring>

</item>
<item>
    <instanceId>i-2bc64242</instanceId>
    <imageId>ami-60a54009</imageId>
    <instanceState>
        <code>0</code>
        <name>pending</name>
    </instanceState>
    <privateDnsName></privateDnsName>
    <dnsName></dnsName>
    <keyName>example-key-name</keyName>
    <amiLaunchIndex>1</amiLaunchIndex>
    <instanceType>m1.small</instanceType>
    <launchTime>2007-08-07T11:51:50.000Z</launchTime>
    <placement>
        <availabilityZone>us-east-1b</availabilityZone>
    </placement>
    <monitoring>
        <enabled>true</enabled>
    </monitoring>
</item>
<item>
    <instanceId>i-2be64332</instanceId>
    <imageId>ami-60a54009</imageId>
    <instanceState>
        <code>0</code>
        <name>pending</name>
    </instanceState>
```

```
<privateDnsName></privateDnsName>
<dnsName></dnsName>
<keyName>example-key-name</keyName>
<amiLaunchIndex>2</amiLaunchIndex>
<instanceType>m1.small</instanceType>
<launchTime>2007-08-07T11:51:50.000Z</launchTime>
<placement>
    <availabilityZone>us-east-1b</availabilityZone>
</placement>
<monitoring>
    <enabled>true</enabled>
</monitoring>
</item>
</instancesSet>
</RunInstancesResponse>
```

Related Operations

- [DescribeInstances](#)
- [TerminateInstances](#)
- [AuthorizeSecurityGroupIngress](#)
- [RevokeSecurityGroupIngress](#)
- [DescribeSecurityGroups](#)
- [CreateSecurityGroup](#)
- [CreateKeyPair](#)

TerminateInstances

Description

Shuts down one or more instances. This operation is idempotent; if you terminate an instance more than once, each call will succeed.

Terminated instances will remain visible after termination (approximately one hour).

Request Parameters

Name	Description	Required
<i>InstanceId.n</i>	Instance ID to terminate. Type: String Default: None	Yes

Response Elements

Name	Description
TerminateInstancesResponseType	TerminateInstancesResponseType element. Type:

TerminateInstancesResponseType

Ancestor: None

Children: requestId, instancesSet

requestId

The ID of the request.

Type: xsd:string

Ancestor: TerminateInstancesResponseType

Children: None

instancesSet

Instances set.

Type: [TerminateInstancesResponseInfoType](#)

Ancestor: TerminateInstancesResponseType

Children: item

item

Response item.

Type: [TerminateInstancesResponseType](#)

Ancestor: instancesSet

Children: instanceId, shutdownState, and previousState

instanceId

Instance ID.

Type: xsd:string

Ancestor: item

Children: None

shutdownState

Shutdown state.

Type: [InstanceStateType](#)

Ancestor: item

Children: code, name

code

A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:

Type: xsd:int

Ancestor: shutdownState

Children: None

name

The current state of the instance.

Type: xsd:string

Ancestor: shutdownState

Children: None

previousState

Previous state.

Type: [InstanceStateType](#)

Ancestor: item

Children: code, name

code

A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:

Type: xsd:int

Ancestor: previousState

Children: None

name

The current state of the instance.

Type: xsd:string

Ancestor: previousState

Children: None

Examples

Example Request

This example terminates the i-3ea74257 instance.

```
https://ec2.amazonaws.com/?Action=TerminateInstances&I
```

Example Response

```
<TerminateInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">\n    <instancesSet>\n        <item>\n            <instanceId>i-3ea74257</instanceId>\n            <shutdownState>\n                <code>32</code>\n                <name>shutting-down</name>\n            </shutdownState>\n            <previousState>\n                <code>16</code>\n                <name>running</name>\n            </previousState>\n        </item>\n    </instancesSet>\n</TerminateInstancesResponse>
```

Related Operations

- [DescribeInstances](#)

UnmonitorInstances

Description

Disables monitoring for a running instance. For more information, refer to the *Amazon CloudWatch Developer Guide*.

Request Parameters

Name	Description	Required
<i>InstanceId.n</i>	Instance ID. Type: String Default: None	Yes

Response Elements

Name	Description
MonitorInstancesResponseType	MonitorInstancesResponseType element. Type:

MonitorInstancesResponseType

Ancestor: None

Children: requestId, instancesSet

requestId

The ID of the request.

Type: xsd:string

Ancestor: MonitorInstancesResponseType

Children: None

instancesSet

Monitor instance response set.

Type: [MonitorInstancesResponseSetType](#)

Ancestor: MonitorInstancesResponseType

Children: item

item

Instance Item.

Type: [MonitorInstancesResponseSetItemType](#)

Ancestor: instancesSet

Children: instanceId, monitoring

instanceId

Instance ID.

Type: xsd:string

Ancestor: item

Children: None

monitoring

Monitoring information.

Type: [InstanceMonitoringStateType](#)

Ancestor: item

Children: state

state

State of monitoring for the instance.

Type: xsd:string

Valid Values: monitoring-enabled (enabled) | monitoring-pending (pending) | monitoring-disabled (disabled)

Ancestor: monitoring

Children: None

Examples

Example Request

This example disables monitoring for i-43a4412a and i-23a3397d.

```
https://ec2.amazonaws.com/?Action=UnmonitorInstances&
```

Example Response

```
<UnmonitorInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">  <instancesSet>
    <item>
        <instanceId> i-43a4412a</instanceId>
        <monitoring>
            <state>pending</state>
        </monitoring>
    </item>
    <item>
        <instanceId>i-23a3397d</instanceId>
        <monitoring>
            <state>pending</state>
        </monitoring>
    </item>
  </instancesSet>
</UnmonitorInstancesResponse>
```

Related Operations

- [MonitorInstances](#)
- [RunInstances](#)

Amazon EC2 SOAP API

Topics

- [List of SOAP Operations by Function](#)
- [AllocateAddress](#)
- [AssociateAddress](#)
- [AttachVolume](#)
- [AuthorizeSecurityGroupIngress](#)
- [BundleInstance](#)
- [CancelBundleTask](#)
- [ConfirmProductInstance](#)
- [CreateKeyPair](#)
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- [DescribeAddresses](#)
- [DescribeAvailabilityZones](#)
- [DescribeBundleTasks](#)
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- [DescribeImages](#)

- [DescribeInstances](#)
- [DescribeKeyPairs](#)
- [DescribeRegions](#)
- [DescribeReservedInstances](#)
- [DescribeReservedInstancesOfferings](#)
- [DescribeSecurityGroups](#)
- [DescribeSnapshotAttribute](#)
- [DescribeSnapshots](#)
- [DescribeVolumes](#)
- [DetachVolume](#)
- [DisassociateAddress](#)
- [GetConsoleOutput](#)
- [GetPasswordData](#)
- [ModifyImageAttribute](#)
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- [MonitorInstances](#)
- [PurchaseReservedInstancesOffering](#)
- [RebootInstances](#)
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- [RevokeSecurityGroupIngress](#)
- [RunInstances](#)
- [TerminateInstances](#)
- [UnmonitorInstances](#)

List of SOAP Operations by Function

Amazon DevPay

-

[ConfirmProductInstance](#)

AMIs

- [DeregisterImage](#)
- [DescribeImageAttribute](#)
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Availability Zones and Regions

- [DescribeAvailabilityZones](#)
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Elastic Block Store

- [AttachVolume](#)
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Elastic IP Addresses

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General

- [GetConsoleOutput](#)

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Instances

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Key Pairs

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Monitoring

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Reserved Instances

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Security Groups

- [AuthorizeSecurityGroupIngress](#)
- [CreateSecurityGroup](#)
- [DeleteSecurityGroup](#)
- [DescribeSecurityGroups](#)
- [RevokeSecurityGroupIngress](#)

Windows

- [BundleInstance](#)
- [CancelBundleTask](#)
- [DescribeBundleTasks](#)
- [GetPasswordData](#)

AllocateAddress

Description

Acquires an elastic IP address for use with your account.

Request Parameters

The AllocateAddress operation does not have any request parameters.

Response Elements

Name	Description
AllocateAddressResponseType	AllocateAddressResponseType element. Type:

AllocateAddressResponseType

Ancestor: None

Children: requestId, publicIp

requestId

The ID of the request.

Type: xsd:string

Ancestor: AllocateAddressResponseType

Children: None

publicIp

IP address for use with your account.

Type: xsd:string

Ancestor: AllocateAddressResponseType

Children: None

Examples

Example Request

This example returns an elastic IP address for use with the account.

```
<AllocateAddress xmlns="http://ec2.amazonaws.com/doc/2
```

Example Response

```
<AllocateAddressResponse xmlns="http://ec2.amazonaws.com/doc/2
    <publicIp>67.202.55.255</publicIp>
</AllocateAddressResponse>
```

Related Operations

- [DescribeAddresses](#)
- [ReleaseAddress](#)
- [AssociateAddress](#)
- [DisassociateAddress](#)

AssociateAddress

Description

Associates an elastic IP address with an instance. If the IP address is currently assigned to another instance, the IP address is assigned to the new instance. This is an idempotent operation. If you enter it more than once, Amazon EC2 does not return an error.

Request Parameters

Name	Description	Required
AssociateAddressType	AssociateAddressType element. Type:	

[AssociateAddressType](#)

Ancestor: None

Children: publicIp, instanceId

publicIp

IP address that you are assigning to the instance.

Type: xsd:string

Default: None

Ancestor: AssociateAddressType

Children: None

Yes

instanceId

The instance to associate with the IP address.

Type: xsd:string

Default: None

Ancestor: AssociateAddressType

Children: None

Yes

Response Elements

Name	Description
AssociateAddressResponseType	<p>AssociateAddressResponseType element.</p> <p>Type: AssociateAddressResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: AssociateAddressResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: AssociateAddressResponseType</p> <p>Children: None</p>

Examples

Example Request

This example associates an IP address with an instance.

```
<AssociateAddress xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <instanceId>i-28a64341</instanceId>
  <publicIp>67.202.55.255</publicIp>
</AssociateAddress>
```

Example Response

```
<AssociateAddressResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <return>true</return>
</AssociateAddressResponse>
```

Related Operations

- [AllocateAddress](#)
- [DescribeAddresses](#)
- [ReleaseAddress](#)
- [DisassociateAddress](#)

AttachVolume

Description

Attaches an Amazon EBS volume to a running instance and exposes it as the specified device.



Note

Windows instances currently support devices xvda through xvdp. Devices xvda and xvdb are reserved by the operating system, xvdc is assigned to drive C:\, and, depending on the instance type, devices xvdd through xvde might be reserved by the instance stores. Any device that is not reserved can be attached to an Amazon EBS volume. For a list of devices that are reserved by the instance stores, go to the

[Amazon Elastic Compute Cloud Developer Guide](#).

Request Parameters

Name	Description	Required
AttachVolumeType	<p>AttachVolumeType element.</p> <p>Type: AttachVolumeType</p> <p>Ancestor: None</p> <p>Children: volumeId, instanceId, and device</p>	
volumeId	<p>The ID of the Amazon EBS volume. The volume and instance must be within the same Availability Zone and the instance must be running.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: AttachVolumeType</p> <p>Children: None</p>	Yes
instanceId	<p>The ID of the instance to which the volume attaches. The volume and instance must be within the same Availability Zone and the instance must be running.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: AttachVolumeType</p> <p>Children: None</p>	Yes
device	<p>Specifies how the device is exposed to the instance (e.g., /dev/sdh).</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: AttachVolumeType</p> <p>Children: None</p>	Yes

Response Elements

Name	Description
AttachVolumeResponseType	<p>AttachVolumeResponseType element.</p> <p>Type: AttachVolumeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, volumeId, instanceId, device, status, and attachTime</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>
device	<p>The device as it is exposed to the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>
status	<p>Volume state (e.g.,</p> <p>Type: xsd:string</p> <p>Ancestor: AttachVolumeResponseType</p>

	Children: None
attachTime	<p>Time stamp when the attachment was initiated.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: AttachVolumeResponseType</p> <p>Children: None</p>

Examples

Example Request

This example attaches volume vol-4d826724 to instance i-6058a509 and exposes it as /dev/sdh. For information on standard storage locations, go to the [Amazon Elastic Compute Cloud Developer Guide](#).

```
<AttachVolume xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <volumeId>vol-4d826724</volumeId>
  <instanceId>i-6058a509</instanceId>
  <device>/dev/sdh</device>
</AttachVolume>
```

Example Response

```
<AttachVolumeResponse xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <volumeId>vol-4d826724</volumeId>
  <instanceId>i-6058a509</instanceId>
  <device>/dev/sdh</device>
  <status>attaching</status>
  <attachTime>2008-05-07T11:51:50.000Z</attachTime>
</AttachVolumeResponse>
```

Related Operations

- [CreateVolume](#)
- [DeleteVolume](#)
- [DescribeVolumes](#)
- [DetachVolume](#)

AuthorizeSecurityGroupIn

Description

Adds permissions to a security group.

Permissions are specified by the IP protocol (TCP, UDP or ICMP), the source of the request (by IP range or an Amazon EC2 user-group pair), the source and destination port ranges (for TCP and UDP), and the ICMP codes and types (for ICMP). When authorizing ICMP, -1 can be used as a wildcard in the type and code fields.

Permission changes are propagated to instances within the security group as quickly as possible. However, depending on the number of instances, a small delay might occur.

When authorizing a user/group pair permission, *GroupName*, *SourceSecurityGroupName* and *SourceSecurityGroupOwnerId* must be specified. When authorizing a CIDR IP permission, *GroupName*, *IpProtocol*, *FromPort*, *ToPort* and *CidrIp* must be specified.

Request Parameters

Name	Description	Required
AuthorizeSecurityGroupIngressType	AuthorizeSecurityGroupIngressType element. Type:	

[AuthorizeSecurityGroupIngressType](#)

Ancestor: None

Children: userId, groupName, and ipPermissions

userId

AWS Access Key ID.

Type: xsd:string

Default: None

Ancestor: AuthorizeSecurityGroupIngressType

Children: None

Yes

groupName

Name of the group to modify. The name must be valid

and belong to the account

Type: xsd:string

Default: None

Ancestor: AuthorizeSecurityGroupIngressType

Children: None

Yes

ipPermissions

Set of permissions.

Type: [IpPermissionSetType](#)

Ancestor: AuthorizeSecurityGroupIngressType

Children: item

Yes

item

Set of IP permissions.

Type: [IpPermissionType](#)

Ancestor: ipPermissions

Children: ipProtocol, fromPort, toPort, groups, and ipRanges

Yes

ipProtocol

IP protocol.

Type: xsd:string

Valid Values: tcp | udp | icmp

Default: None

Ancestor: item

Children: None

Yes

fromPort

Start of port range for the TCP and UDP protocols, or an ICMP type number. An ICMP type number of -1 indicates a wildcard (i.e., any ICMP type number).

Type: xsd:int

Default: None

Ancestor: item

Children: None

Yes

toPort

End of port range for the TCP and UDP protocols, or an ICMP code. An ICMP code of -1 indicates a wildcard (i.e., any ICMP code).

Type: xsd:int

Default: None

Ancestor: item

Children: None

Yes

groups

List of security group and user ID pairs.

Type: [UserIdGroupPairSetType](#)

Ancestor: item

Children: item

Yes

item

Information for one security group.

Type: [UserIdGroupPairType](#)

Ancestor: groups

Children: userId, groupName

Yes

userId

AWS User ID of an account. Cannot be used when specifying a CIDR IP address.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

groupName

Name of the security group. Cannot be used when specifying a CIDR IP address.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

ipRanges

IP ranges.

Type: [IpRangeSetType](#)

Ancestor: item

Children: item

Yes

item

Information for one IP range.

Type: [IpRangeItemType](#)

Ancestor: ipRanges

Children: cidrIp

Yes

cidrIp

CIDR range.

Type: xsd:string

Default: None

Constraints: Valid CIDR IP address range.

Ancestor: item

Children: None

Yes

Response Elements

Name	Description
AuthorizeSecurityGroupIngressResponseType	<p>AuthorizeSecurityGroupIngressResponseType element.</p> <p>Type: AuthorizeSecurityGroupIngressResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: AuthorizeSecurityGroupIngressResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: AuthorizeSecurityGroupIngressResponseType</p> <p>Children: None</p>

Examples

Example Request

This example grants TCP port 80 access from the 205.192.0.0/16 address range to the `websrv` security group.

```
<AuthorizeSecurityGroupIngress xmlns="http://ec2.amazonaws.com/doc/2013-10-15/">  <userId/>  <groupName>websrv</groupName>  <ipPermissions>    <item>      <ipProtocol>tcp</ipProtocol>      <fromPort>80</fromPort>      <toPort>80</toPort>      <groups/>      <ipRanges>        <item>          <cidrIp>205.192.0.0/16</cidrIp>        </item>      </ipRanges>    </item>  </ipPermissions></AuthorizeSecurityGroupIngress>
```

Example Response

```
<AuthorizeSecurityGroupIngressResponse xmlns="http://ec2.amazonaws.com/doc/2013-10-15/">  <return>true</return></AuthorizeSecurityGroupIngressResponse>
```


Related Operations

- [CreateSecurityGroup](#)
- [DescribeSecurityGroups](#)
- [RevokeSecurityGroupIngress](#)
- [DeleteSecurityGroup](#)

BundleInstance

Description

Bundles the Windows instance. This procedure is not applicable for Linux and UNIX instances. For more information, go to the

[Amazon Elastic Compute Cloud Developer Guide](#) or
[Amazon Elastic Compute Cloud Getting Started Guide](#).



Note

During bundling, only the root store (C:\) is bundled. Data on other instance stores is not preserved.

Request Parameters

Name	Description	Required
BundleInstanceType	<p>BundleInstanceType element.</p> <p>Type: BundleInstanceType</p> <p>Ancestor: None</p> <p>Children: instanceId, storage</p>	
instanceId	<p>The ID of the instance to bundle.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: BundleInstanceType</p> <p>Children: None</p>	Yes
storage	<p>Amazon S3 storage locations.</p> <p>Type: BundleInstanceTaskStorageType</p> <p>Ancestor: BundleInstanceType</p> <p>Children: s3</p>	Yes
s3	<p>Amazon S3 storage location.</p> <p>Type: BundleInstanceS3StorageType</p> <p>Ancestor: storage</p> <p>Children: bucket, prefix, awsAccessKeyId, uploadPolicy, and uploadPolicySignature</p>	Yes
bucket	<p>The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: s3</p>	Yes

	Children: None	
prefix	<p>Specifies the beginning of the file name of the AMI.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: s3</p> <p>Children: None</p>	Yes
awsAccessKeyId	<p>The Access Key ID of the owner of the Amazon S3 bucket.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: s3</p> <p>Children: None</p>	Yes
uploadPolicy	<p>A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: s3</p> <p>Children: None</p>	Yes
uploadPolicySignature	<p>The signature of the Base64 encoded JSON document.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: s3</p> <p>Children: None</p>	Yes

JSON Parameters

The upload policy gives Amazon EC2 limited permission to upload items into your Amazon S3 bucket. The following table describes the required parameters for the upload policy JSON document. Parameter names are case sensitive. For more information about upload policies and how to sign them, go to the [Amazon Elastic Compute Cloud Developer Guide](#).

Name	Description	Required
expiration	The expiration of the policy. We recommend 12 hours or longer.	Yes
conditions	A list of restrictions on what can be uploaded to Amazon S3. Must contain the bucket and ACL conditions in this table.	Yes
bucket	The bucket to store the AMI.	Yes
acl	This must be set to ec2-bundle-read.	Yes

Response Elements

Name	Description
BundleInstanceResponseType	<p>BundleInstanceResponseType element.</p> <p>Type: BundleInstanceResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, bundleInstanceTask</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: BundleInstanceResponseType</p> <p>Children: None</p>
bundleInstanceTask	<p>Bundle task.</p> <p>Type: BundleInstanceTaskType</p> <p>Ancestor: BundleInstanceResponseType</p> <p>Children: instanceId, bundleId, state, startTime, updateTime, storage, progress, and error</p>
instanceId	<p>Instance associated with this bundle task.</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
bundleId	<p>Identifier for this task.</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
state	<p>The state of the task.</p> <p>Type: xsd:string</p>

	<p>Valid Values: pending waiting-for-shutdown storing canceling complete failed</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
startTime	<p>The time this task started.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
updateTime	<p>The time of the most recent update for the task.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
storage	<p>Amazon S3 storage locations.</p> <p>Type: BundleInstanceTaskStorageType</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: s3</p>
s3	<p>Amazon S3 storage location.</p> <p>Type: BundleInstanceS3StorageType</p> <p>Ancestor: storage</p> <p>Children: bucket, prefix, awsAccessKeyId, uploadPolicy, and uploadPolicySignature</p>
bucket	<p>The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
prefix	<p>Specifies the beginning of the file name of the AMI.</p> <p>Type: xsd:string</p>

	<p>Ancestor: s3</p> <p>Children: None</p>
awsAccessKeyId	<p>The Access Key ID of the owner of the Amazon S3 bucket.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicy	<p>A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicySignature	<p>The signature of the Base64 encoded JSON document.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
progress	<p>The level of task completion, in percent (e.g., 20%).</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
error	<p>If the task fails, a description of the error.</p> <p>Type: BundleInstanceTaskErrorType</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: code, message</p>
code	<p>Error code.</p> <p>Type: xsd:string</p> <p>Ancestor: error</p> <p>Children: None</p>

`message`

Error message.

Type: xsd:string

Ancestor: error

Children: None

Examples

Example Request

This example bundles the i-e468cd8d instance.

```
<BundleInstance xmlns="http://ec2.amazonaws.com/doc/2008-10-07">
  <instanceId>i-e468cd8d</instanceId>
  <storage>
    <S3>
      <bucket>my-bucket</bucket>
      <prefix>winami</prefix>
      <awsAccessKeyId>10QMXFEV71ZS32XQFTR2</awsAccessKeyId>
      <uploadPolicy>eyJleHBpcmF0aW9uIjogIjIwMDgtMDgtMzIY2tldCI6ICJteS1idWNrZXQifSxbInN0YXJ0cy13aXRoi
      <uploadPolicySignature>w6BZu2oxGsiilZnoBmQSErotu
    </S3>
  </storage>
</BundleInstance>
```

Example Response

```
<BundleInstanceResponse xmlns="http://ec2.amazonaws.com/doc/2008-10-07">
  <requestId>bun-c1a540a8</requestId>
  <bundleInstanceTask>
    <instanceId>i-12345678</instanceId>
    <bundleId>bun-c1a540a8</bundleId>
    <state>bundling</state>
    <startTime>2008-10-07T11:41:50.000Z</startTime>
    <updateTime>2008-10-07T11:51:50.000Z</updateTime>
    <progress>70%</progress>
  </bundleInstanceTask>
</BundleInstanceResponse>
```

```
<storage>
  <S3>
    <bucket>my-bucket</bucket>
    <prefix>winami</prefix>
  </S3>
</storage>
</bundleInstanceTask>
</BundleInstanceResponse>
```

Related Operations

- [CancelBundleTask](#)
- [DescribeBundleTasks](#)

CancelBundleTask

Description

Cancels an Amazon EC2 bundling operation. For more information on bundling instances, go to the

[Amazon Elastic Compute Cloud Developer Guide](#) or
[Amazon Elastic Compute Cloud Getting Started Guide](#).

Request Parameters

Name	Description	Required
CancelBundleTaskType	<p>CancelBundleTaskType element.</p> <p>Type: CancelBundleTaskType</p> <p>Ancestor: None</p> <p>Children: bundleId</p>	
bundleId	<p>The ID of the bundle task to cancel.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: CancelBundleTaskType</p> <p>Children: None</p>	Yes

Response Elements

Name	Description
CancelBundleTaskResponseType	<p>CancelBundleTaskResponseType element.</p> <p>Type: CancelBundleTaskResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, bundleInstanceTask</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: CancelBundleTaskResponseType</p> <p>Children: None</p>
bundleInstanceTask	<p>Bundle task to cancel.</p> <p>Type: BundleInstanceTaskType</p> <p>Ancestor: CancelBundleTaskResponseType</p> <p>Children: instanceId, bundleId, state, startTime, updateTime, storage, progress, and error</p>
instanceId	<p>Instance associated with this bundle task.</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
bundleId	<p>Identifier for this task.</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
state	<p>The state of the task.</p> <p>Type: xsd:string</p>

	<p>Valid Values: pending waiting-for-shutdown storing canceling complete failed</p> <p>Ancestor: <code>bundleInstanceTask</code></p> <p>Children: None</p>
<code>startTime</code>	<p>The time this task started.</p> <p>Type: <code>xsd:dateTime</code></p> <p>Ancestor: <code>bundleInstanceTask</code></p> <p>Children: None</p>
<code>updateTime</code>	<p>The time of the most recent update for the task.</p> <p>Type: <code>xsd:dateTime</code></p> <p>Ancestor: <code>bundleInstanceTask</code></p> <p>Children: None</p>
<code>storage</code>	<p>Amazon S3 storage locations.</p> <p>Type: <code>BundleInstanceTaskStorageType</code></p> <p>Ancestor: <code>bundleInstanceTask</code></p> <p>Children: <code>s3</code></p>
<code>s3</code>	<p>Amazon S3 storage location.</p> <p>Type: <code>BundleInstanceS3StorageType</code></p> <p>Ancestor: <code>storage</code></p> <p>Children: <code>bucket</code>, <code>prefix</code>, <code>awsAccessKeyId</code>, <code>uploadPolicy</code>, and <code>uploadPolicySignature</code></p>
<code>bucket</code>	<p>The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error.</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>s3</code></p> <p>Children: None</p>
<code>prefix</code>	<p>Specifies the beginning of the file name of the AMI.</p> <p>Type: <code>xsd:string</code></p>

	<p>Ancestor: s3</p> <p>Children: None</p>
awsAccessKeyId	<p>The Access Key ID of the owner of the Amazon S3 bucket.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicy	<p>A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicySignature	<p>The signature of the Base64 encoded JSON document.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
progress	<p>The level of task completion, in percent (e.g., 20%).</p> <p>Type: xsd:string</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: None</p>
error	<p>If the task fails, a description of the error.</p> <p>Type: BundleInstanceTaskErrorType</p> <p>Ancestor: bundleInstanceTask</p> <p>Children: code, message</p>
code	<p>Error code.</p> <p>Type: xsd:string</p> <p>Ancestor: error</p> <p>Children: None</p>

`message`

Error message.

Type: xsd:string

Ancestor: `error`

Children: None

Examples

Example Request

This example cancels the bun-cla322b9 bundle task.

```
<CancelBundleTask xmlns="http://ec2.amazonaws.com/doc/2008-10-07">
  <bundleId>bun-cla322b9</bundleId>
</CancelBundleTask>
```

Example Response

```
<CancelBundleTaskResponse xmlns="http://ec2.amazonaws.com/doc/2008-10-07">
  <bundleInstanceTask>
    <instanceId>i-12345678</instanceId>
    <bundleId>bun-cla322b9</bundleId>
    <state>canceling</state>
    <startTime>2008-10-07T11:41:50.000Z</startTime>
    <updateTime>2008-10-07T11:51:50.000Z</updateTime>
    <progress>20%</progress>
    <storage>
      <S3>
        <bucket>my-bucket</bucket>
        <prefix>my-new-image</prefix>
      </S3>
    </storage>
  </bundleInstanceTask>
</CancelBundleTaskResponse>
```

Related Operations

- [BundleInstance](#)
- [DescribeBundleTasks](#)

ConfirmProductInstance

Description

Verifies whether a Amazon DevPay product code is associated with an instance. This can only be executed by the owner of the AMI and is useful when an AMI owner wants to verify whether a user's instance is eligible for support.

Request Parameters

Name	Description	Required
ConfirmProductInstanceType	ConfirmProductInstanceType element. Type:	

[ConfirmProductInstanceType](#)

Ancestor: None

Children: `productCode`, `instanceId`

`productCode`

The product code to confirm.

Type: `xsd:string`

Default: None

Ancestor: `ConfirmProductInstanceType`

Children: None

Yes

`instanceId`

The instance to confirm.

Type: xsd:string

Default: None

Ancestor: ConfirmProductInstanceType

Children: None

Yes

Response Elements

Name	Description
ConfirmProductInstanceResponseType	<p>ConfirmProductInstanceResponseType element.</p> <p>Type: ConfirmProductInstanceResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return, and ownerId</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: ConfirmProductInstanceResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: ConfirmProductInstanceResponseType</p> <p>Children: None</p>
ownerId	<p>The instance owner's account ID. Only present if the product code is attached to the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: ConfirmProductInstanceResponseType</p> <p>Children: None</p>

Examples

Example Request

This example describes the confirms the product code is associated with the instance.

```
<ConfirmProductInstance xmlns="http://ec2.amazonaws.co
  <productCode>774F4FF8</productCode>
  <instanceId>i-10a64379</instanceId>
</ConfirmProductInstance>
```

Example Response

```
<ConfirmProductInstanceResponse xmlns="http://ec2.amaz
  <return>true</return>
  <ownerId>254933287430</ownerId>
</ConfirmProductInstanceResponse>
```

Related Operations

- [DescribeInstances](#)
- [RunInstances](#)

CreateKeyPair

Description

Creates a new 2048-bit RSA key pair with the specified name. The public key is stored by Amazon EC2 and the private key is displayed on the console. The private key is returned as an unencrypted PEM encoded PKCS#8 private key. If a key with the specified name already exists, Amazon EC2 returns an error.

Request Parameters

Name	Description	Required
CreateKeyPairType	CreateKeyPairType element. Type:	

[CreateKeyPairType](#)

Ancestor: None

Children: keyName

keyName

A unique name for the key pair.

Type: xsd:string

Default: None

Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores.

Ancestor: CreateKeyPairType

Children: None

Yes

Response Elements

Name	Description
CreateKeyPairResponseType	<p>CreateKeyPairResponseType element.</p> <p>Type: CreateKeyPairResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, keyName, keyFingerprint, and keyMaterial</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateKeyPairResponseType</p> <p>Children: None</p>
keyName	<p>The key pair name provided in the original request.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateKeyPairResponseType</p> <p>Children: None</p>
keyFingerprint	<p>A SHA-1 digest of the DER encoded private key.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateKeyPairResponseType</p> <p>Children: None</p>
keyMaterial	<p>An unencrypted PEM encoded RSA private key.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateKeyPairResponseType</p> <p>Children: None</p>

Examples

Example Request

This example creates a key pair named gsg-keypair.

```
<CreateKeyPair xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <keyName>gsg-keypair</keyName>
</CreateKeyPair>
```

Example Response

```
<CreateKeyPairResponse xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <keyName>gsg-keypair</keyName>
  <keyFingerprint>1f:51:ae:28:bf:89:e9:d8:1f:25:5d:37:</keyFingerprint>
  <keyMaterial>-----BEGIN RSA PRIVATE KEY-----
MIIEoQIBAAKCAQBuLFg5ujHrtm1jnutSuo08Xe56LlT+HM8v/xkaaE
HungXQ29VTc8rc1bW0lkdi230H5eqkMHGhvEwqa0HWASUMll4o3o/J
5AU52EQfanIn3ZQ8lFW7Edp5a3q4DhjGLUKToHVbicL5E+g45zfB9E
ebIUlq1qTbHkLbCC2r7RTn8vpQWp47BGVYGtGSBMpTRP5hnbzzuqjE
i8BygR4s3mHKBj8l+ePQxG1kGbF6R4yg6sECmXn17MRQVXODNHZbAq
91CXirkYGuVfLyLf1XenxfI50mDFms/mumTqloH07tr0riHDR5K7v
ZNUJs7rw9gZRTrf7LylaJ58k0cyajw8TsC4e4LPbFaHwS1d6K8rXhE
3wcfgt5ecIu4TZf00E9IHjn+2eRlsrjBde0Ri7KiUNC/pAG23I6MdE
SWS4dMrbpb9FNSIcf9dcLxVM7/6KxgJNfZc9XWzUw77Jg8x92Zd0f\l
tE8C3p9bbU9VGyY5vLCAiIb4qQKBgQDLi024GXrIkswF32YtBBMuVc
jUE5IpzRjTecd9I2qiIMUTwtgnw42auSCzbUeYMURPtDqyQ7p6AjMu
xW9MC0dtV6iPkCN7g0qiZXPRKaFbWADp16p8UAIVS/a5XXk5jwKBgC
iDCiK6JBRsMvpLbc0v5dKwP5alo1fmdR5PJJaV2qvZSj5CYNpMAy1/E
rdLNLDL4+TcnT7c62/aH01ohYaf/VCbRhtL1BfqGoQc7+sAc8vmKke
gC0iZzzNAapayz1+JcVTwwEid6j9JqNXbBc+Z2YwMi+T0Fv/P/hwk>
```

```
DQbsz7LcY1HqXiHKYNWNvXgww0+oiChj xvEkSdsTTIfnK4VSCvU9B>
rBYvChJZF7LvUH4YmVpHAoGAbZ2X7XvoeE0+uZ58/BGK0IGHByHBDi
gK+8zp4L9IbvLGDMJ08vft32XPEWuvI8twCzFH+CsWLQADZMZKSsBa
JZKjTSu3i7vhvx6RzdSedXEMNTZWN4qlIx3kR5aHcukCgYA9T+Zrvn
P8TTvW/6bdPi23ExzxZn7K0drfc1YRph1LHMpA0Nv/x2xALIf91UB+
2ERKKdwz0ZL9SWq6VTdhr/5G994CK72fy5WhyERbDjUIdHaK3M849J
-----END RSA PRIVATE KEY-----</keyMaterial>
</CreateKeyPairResponse>
```

Related Operations

- [RunInstances](#)
- [DescribeKeyPairs](#)
- [DeleteKeyPair](#)

CreateSecurityGroup

Description

Creates a new security group. Group names must be unique per account.

Every instance is launched in a security group. If no security group is specified during launch, the instances are launched in the default security group. Instances within the same security group have unrestricted network access to each other. Instances will reject network access attempts from other instances in a different security group. As the owner of instances you can grant or revoke specific permissions using the `AuthorizeSecurityGroupIngress` and `RevokeSecurityGroupIngress` operations.

Request Parameters

Name	Description	Required
CreateSecurityGroupType	CreateSecurityGroupType element. Type:	

CreateSecurityGroupType

Ancestor: None

Children: groupName, groupDescription

groupName

Name of the security group.

Type: xsd:string

Default: None

Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores.

Ancestor: CreateSecurityGroupType

Children: None

Yes

groupDescription

Description of the group. This is informational only. If the description contains spaces, you must enclose it in single quotes ('') or URL-encode it.

Type: xsd:string

Default: None

Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores.

Ancestor: CreateSecurityGroupType

Children: None

Yes

Response Elements

Name	Description
CreateSecurityGroupResponseType	<p>CreateSecurityGroupResponseType element.</p> <p>Type: CreateSecurityGroupResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSecurityGroupResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: CreateSecurityGroupResponseType</p> <p>Children: None</p>

Examples

Example Request

This example creates the `websrv` security group.

```
<CreateSecurityGroup xmlns="http://ec2.amazonaws.com/c  
    <groupName>websrv</groupName>  
    <groupDescription>Web Servers</groupDescription>  
</CreateSecurityGroup>
```

Example Response

```
<CreateSecurityGroupResponse xmlns="http://ec2.amazonaws.com/c  
    <return>true</return>  
</CreateSecurityGroupResponse>
```

Related Operations

- [RunInstances](#)
- [DescribeSecurityGroups](#)
- [AuthorizeSecurityGroupIngress](#)
- [RevokeSecurityGroupIngress](#)
- [DeleteSecurityGroup](#)

CreateSnapshot

Description

Creates a snapshot of an Amazon EBS volume and stores it in Amazon S3. You can use snapshots for backups, to make identical copies of instance devices, and to save data before shutting down an instance. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

When taking a snapshot of a file system, we recommend unmounting it first. This ensures the file system metadata is in a consistent state, that the 'mounted indicator' is cleared, and that all applications using that file system are stopped and in a consistent state. Some file systems, such as xfs, can freeze and unfreeze activity so a snapshot can be made without unmounting.

For Linux/UNIX, enter the following command from the command line.

```
umount -d /dev/sdh
```

For Windows, open Disk Management, right-click the volume to unmount, and select Change Drive Letter and Path. Then, select the mount point to remove and click

Remove.

Request Parameters

Name	Description	Required
CreateSnapshotType	<p>CreateSnapshotType element.</p> <p>Type: CreateSnapshotType</p> <p>Ancestor: None</p> <p>Children: volumeId, description</p>	
volumeId	<p>The ID of the Amazon EBS volume of which to take a snapshot.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: CreateSnapshotType</p> <p>Children: None</p>	Yes
description	<p>Description of the Amazon EBS snapshot.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Constraints: 256 characters.</p> <p>Ancestor: CreateSnapshotType</p> <p>Children: None</p>	No

Response Elements

Name	Description
CreateSnapshotResponseType	<p>CreateSnapshotResponseType element.</p> <p>Type: CreateSnapshotResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, snapshotId, volumeId, status, startTime, progress, ownerId, volumeSize, and description</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSnapshotResponseType</p> <p>Children: None</p>
snapshotId	<p>The ID of the snapshot.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSnapshotResponseType</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSnapshotResponseType</p> <p>Children: None</p>
status	<p>Snapshot state (e.g.,</p> <p>Type: xsd:string</p> <p>Ancestor: CreateSnapshotResponseType</p> <p>Children: None</p>
startTime	<p>Time stamp when the snapshot was initiated.</p> <p>Type: xsd:dateTime</p>

	<p>Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>
<code>progress</code>	<p>The progress of the snapshot, in percentage. Type: <code>xsd:string</code> Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>
<code>ownerId</code>	<p>The AWS account ID of the Amazon EBS snapshot owner. Type: <code>xsd:string</code> Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>
<code>volumeSize</code>	<p>The size of the volume, in GiB. Type: <code>xsd:string</code> Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>
<code>description</code>	<p>Description of the snapshot. Type: <code>xsd:string</code> Ancestor: <code>CreateSnapshotResponseType</code> Children: None</p>

Examples

Example Request

This example creates a snapshot of volume vol-4d826724.

```
<CreateSnapshot xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <volumeId>vol-4d826724</volumeId>
  <description>Daily Backup</description>
</CreateSnapshot>
```

Example Response

```
<CreateSnapshotResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <snapshotId>snap-78a54011</snapshotId>
  <volumeId>vol-4d826724</volumeId>
  <volumeSize>10</volumeSize>
  <status>pending</status>
  <startTime>2008-05-07T12:51:50.000Z</startTime>
  <progress>60%</progress>
  <ownerId>213457642086</ownerId>
  <description>Daily Backup</description>
</CreateSnapshotResponse>
```

Related Operations

- [DeleteSnapshot](#)
- [DescribeSnapshots](#)

CreateVolume

Description

Creates a new Amazon EBS volume to which any Amazon EC2 instance can attach within the same Availability Zone. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide](#).



Note

You must specify an Availability Zone when creating a volume. The volume and the instance to which it attaches must be in the same Availability Zone.

Request Parameters

Name	Description	Required
CreateVolumeType	<p>CreateVolumeType element.</p> <p>Type: CreateVolumeType</p> <p>Ancestor: None</p> <p>Children: size, snapshotId, and availabilityZone</p>	
size	<p>The size of the volume, in GiBs. Required if you are not creating a volume from a snapshot.</p> <p>Type: xsd:string</p> <p>Valid Values: 1 - 1024</p> <p>Default: None</p> <p>Ancestor: CreateVolumeType</p> <p>Children: None</p>	Yes
snapshotId	<p>The snapshot from which to create the new volume.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: CreateVolumeType</p> <p>Children: None</p>	No
availabilityZone	<p>The Availability Zone in which to create the new volume.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: CreateVolumeType</p> <p>Children: None</p>	Yes

Response Elements

Name	Description
CreateVolumeResponseType	<p>CreateVolumeResponseType element.</p> <p>Type: CreateVolumeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, volumeId, size, snapshotId, availabilityZone, status, and createTime</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateVolumeResponseType</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateVolumeResponseType</p> <p>Children: None</p>
size	<p>The size of the volume, in GiBs.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateVolumeResponseType</p> <p>Children: None</p>
snapshotId	<p>Snapshot from which the volume was created, if applicable.</p> <p>Type: xsd:string</p> <p>Ancestor: CreateVolumeResponseType</p> <p>Children: None</p>
availabilityZone	<p>Availability Zone in which the volume was created.</p> <p>Type: xsd:string</p>

	<p>Ancestor: <code>CreateVolumeResponseType</code></p> <p>Children: None</p>
<code>status</code>	<p>Volume state (e.g.,</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>CreateVolumeResponseType</code></p> <p>Children: None</p>
<code>createTime</code>	<p>Time stamp when volume creation was initiated.</p> <p>Type: <code>xsd:dateTime</code></p> <p>Ancestor: <code>CreateVolumeResponseType</code></p> <p>Children: None</p>

Examples

Example Request

This example creates a new 800 GiB volume in Availability Zone us-east-1a.

```
<CreateVolume xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <size>800</size>
  <availabilityZone>us-east-1a</availabilityZone>
</CreateVolume>
```

Example Response

```
<CreateVolumeResponse xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <volumeId>vol-4d826724</volumeId>
  <size>800</size>
  <status>creating</status>
  <createTime>2008-05-07T11:51:50.000Z</createTime>
  <availabilityZone>us-east-1a</availabilityZone>
  <snapshotId></snapshotId>
</CreateVolumeResponse>
```

Related Operations

- [DeleteVolume](#)
- [DescribeVolumes](#)
- [AttachVolume](#)
- [DetachVolume](#)
- [DescribeAvailabilityZones](#)

DeleteKeyPair

Description

Deletes the specified key pair, by removing the public key from Amazon EC2. You must own the key pair.

Request Parameters

Name	Description	Required
DeleteKeyPairType	DeleteKeyPairType element. Type:	

DeleteKeyPairType

Ancestor: None

Children: keyName

keyName

Name of the key pair to delete.

Type: xsd:string

Default: None

Ancestor: DeleteKeyPairType

Children: None

Yes

Response Elements

Name	Description
DeleteKeyValuePairResponseType	<p>DeleteKeyValuePairResponseType element.</p> <p>Type: DeleteKeyValuePairResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DeleteKeyValuePairResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: DeleteKeyValuePairResponseType</p> <p>Children: None</p>

Examples

Example Request

This example deletes the gsg-keypair key pair.

```
<DeleteKeyPair xmlns="http://ec2.amazonaws.com/doc/2006-03-01">
  <keyName>gsg-keypair</keyName>
</DeleteKeyPair>
```

Example Response

```
<DeleteKeyPairResponse xmlns="http://ec2.amazonaws.com/doc/2006-03-01">
  <return>true</return>
</DeleteKeyPairResponse>
```

Related Operations

- [CreateKeyPair](#)
- [DescribeKeyPairs](#)

DeleteSecurityGroup

Description

Deletes a security group that you own.



Note

If you attempt to delete a security group that contains instances, a fault is returned.

If you attempt to delete a security group that is referenced by another security group, a fault is returned. For example, if security group B has a rule that allows access from security group A, security group A cannot be deleted until the allow rule is removed.

Request Parameters

Name	Description	Required
DeleteSecurityGroupType	DeleteSecurityGroupType element. Type:	

DeleteSecurityGroupType

Ancestor: None

Children: groupName

groupName

Name of the security group to delete.

Type: xsd:string

Default: None

Ancestor: DeleteSecurityGroupType

Children: None

Yes

Response Elements

Name	Description
DeleteSecurityGroupResponseType	<p>DeleteSecurityGroupResponseType element.</p> <p>Type: DeleteSecurityGroupResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DeleteSecurityGroupResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: DeleteSecurityGroupResponseType</p> <p>Children: None</p>

Examples

Example Request

This example deletes the websrv security group.

```
<DeleteSecurityGroup xmlns="http://ec2.amazonaws.com/c  
    <groupName>websrv</groupName>  
</DeleteSecurityGroup>
```

Example Response

```
<DeleteSecurityGroupResponse xmlns="http://ec2.amazonaws.com/c  
    <return>true</return>  
</DeleteSecurityGroupResponse>
```

Related Operations

- [CreateSecurityGroup](#)
- [DescribeSecurityGroups](#)
- [AuthorizeSecurityGroupIngress](#)
- [RevokeSecurityGroupIngress](#)

DeleteSnapshot

Description

Deletes a snapshot of an Amazon EBS volume that you own. For more information, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
DeleteSnapshotType	<p>DeleteSnapshotType element.</p> <p>Type: DeleteSnapshotType</p> <p>Ancestor: None</p> <p>Children: snapshotId</p>	
snapshotId	<p>The ID of the Amazon EBS snapshot to delete.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: DeleteSnapshotType</p> <p>Children: None</p>	Yes

Response Elements

Name	Description
DeleteSnapshotResponseType	<p>DeleteSnapshotResponseType element.</p> <p>Type: DeleteSnapshotResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DeleteSnapshotResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: DeleteSnapshotResponseType</p> <p>Children: None</p>

Examples

Example Request

This example deletes snapshot snap-78a54011.

```
<DeleteSnapshot xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <snapshotId>snap-78a54011</snapshotId>
</DeleteSnapshot>
```

Example Response

```
<DeleteSnapshotResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <return>true</return>
</DeleteSnapshotResponse>
```

Related Operations

- [CreateSnapshot](#)
- [DescribeSnapshots](#)

DeleteVolume

Description

Deletes an Amazon EBS volume that you own. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)



Note

The volume remains in the deleting state for several minutes after you enter this command.

Request Parameters

Name	Description	Required
DeleteVolumeType	<p>DeleteVolumeType element.</p> <p>Type: DeleteVolumeType</p> <p>Ancestor: None</p> <p>Children: volumeId</p>	
volumeId	<p>The ID of the volume to delete. The volume remains in the</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: DeleteVolumeType</p> <p>Children: None</p>	Yes

Response Elements

Name	Description
DeleteVolumeResponseType	<p>DeleteVolumeResponseType element.</p> <p>Type: DeleteVolumeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DeleteVolumeResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: DeleteVolumeResponseType</p> <p>Children: None</p>

Examples

Example Request

This example deletes volume vol-4282672b.

```
<DeleteVolume xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <volumeId>vol-4282672b</volumeId>
</DeleteVolume>
```

Example Response

```
<DeleteVolumeResponse xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <return>true</return>
</DeleteVolumeResponse>
```

Related Operations

- [CreateVolume](#)
- [DescribeVolumes](#)
- [AttachVolume](#)
- [DetachVolume](#)

DeregisterImage

Description

Deregisters the specified AMI. Once deregistered, the AMI cannot be used to launch new instances.



Note

This command does not delete the AMI from Amazon S3.

Request Parameters

Name	Description	Required
DeregisterImageType	DeregisterImageType element. Type:	

DeregisterImageType

Ancestor: None

Children: `imageId`

`imageId`

Unique ID of the AMI which was assigned during registration. To register an AMI, use

Type: `xsd:string`

Default: None

Ancestor: `DeregisterImageType`

Children: None

Yes

Response Elements

Name	Description
DeregisterImageResponseType	<p>DeregisterImageResponseType element.</p> <p>Type: DeregisterImageResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DeregisterImageResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: DeregisterImageResponseType</p> <p>Children: None</p>

Examples

Example Request

This example deregisters the ami-4fa54026 AMI.

```
<DeregisterImage xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <imageId>ami-4fa54026</imageId>
</DeregisterImage>
```

Example Response

```
<DeregisterImageResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <return>true</return>
</DeregisterImageResponse>
```

Related Operations

- [RegisterImage](#)
- [DescribeImages](#)

DescribeAddresses

Description

Lists elastic IP addresses assigned to your account or provides information about a specific address.

Request Parameters

Name	Description	Required
DescribeAddressesType	DescribeAddressesType element. Type:	

[DescribeAddressesType](#)

Ancestor: None

Children: publicIpsSet

publicIpsSet

Set of elastic IP addresses.

Type: [DescribeAddressesInfoType](#)

Ancestor: DescribeAddressesType

Children: item

Yes, but can be empty

item

Information for one elastic IP address.

Type: [DescribeAddressesItemType](#)

Ancestor: publicIpsSet

Children: publicIp

publicIp

Elastic IP address to describe.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes, but can be empty

Response Elements

Name	Description
DescribeAddressesResponseType	<p>DescribeAddressesResponseType element.</p> <p>Type: DescribeAddressesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, addressesSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeAddressesResponseType</p> <p>Children: None</p>
addressesSet	<p>The set of IP addresses.</p> <p>Type: DescribeAddressesResponseInfoType</p> <p>Ancestor: DescribeAddressesResponseType</p> <p>Children: item</p>
item	<p>Information about an instance.</p> <p>Type: DescribeAddressesResponseItemType</p> <p>Ancestor: addressesSet</p> <p>Children: publicIp, instanceId</p>
publicIp	<p>The public IP address.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p>

Children: None

Examples

Example Request

This example describes elastic IP addresses assigned to the account. Amazon EC2 returns 67.202.55.255 which is assigned to instance i-f15ebb98 and 67.202.55.233 which is not assigned to an instance.

```
<DescribeAddresses xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <publicIpsSet>
    <item>
      <publicIp>67.202.55.255</publicIp>
    </item>
    <item>
      <publicIp>67.202.55.233</publicIp>
    </item>
  </publicIpsSet>
</DescribeAddresses>
```

Example Response

```
<DescribeAddressesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <addressesSet>
    <item>
      <instanceId>i-f15ebb98</instanceId>
      <publicIp>67.202.55.255</publicIp>
    </item>
    <item>
      <publicIp>67.202.55.233</publicIp>
    </item>
  </addressesSet>
</DescribeAddressesResponse>
```

```
</item>  
</addressesSet>
```

```
</Des
```

Related Operations

- [AllocateAddress](#)
- [ReleaseAddress](#)

DescribeAvailabilityZones

Description

Displays Availability Zones that are currently available to the account and their states.



Note

Availability Zones are not the same across accounts. The Availability Zone us-east-1a for account A is not necessarily the same as us-east-1a for account B. Zone assignments are mapped independently for each account.

Request Parameters

Name	Description	Required
DescribeAvailabilityZonesType	DescribeAvailabilityZonesType element. Type:	

[DescribeAvailabilityZonesType](#)

Ancestor: None

Children: availabilityZoneSet

availabilityZoneSet

Set of Availability Zones.

Type: [DescribeAvailabilityZonesSetType](#)

Ancestor: DescribeAvailabilityZonesType

Children: item

No

item

Information for one Availability Zone.

Type: [DescribeAvailabilityZonesSetItemType](#)

Ancestor: availabilityZoneSet

Children: zoneName

zoneName

Availability Zone name.

Type: xsd:string

Default: None

Ancestor: item

Children: None

No

Response Elements

Name	Description
DescribeAvailabilityZonesResponseType	<p>DescribeAvailabilityZonesResponseType element.</p> <p>Type: DescribeAvailabilityZonesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, availabilityZoneInfo</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeAvailabilityZonesResponseType</p> <p>Children: None</p>
availabilityZoneInfo	<p>Availability Zone information.</p> <p>Type: AvailabilityZoneSetType</p> <p>Ancestor: DescribeAvailabilityZonesResponseType</p> <p>Children: item</p>
item	<p>Information for one Availability Zone.</p> <p>Type: AvailabilityZoneItemType</p> <p>Ancestor: availabilityZoneInfo</p> <p>Children: zoneName, zoneState, regionName, and messageSet</p>
zoneName	<p>Name of the Availability Zone.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
zoneState	<p>State of the Availability Zone.</p> <p>Type: xsd:string</p> <p>Valid Values: available</p>

	Ancestor: item Children: None
regionName	Name of the region. Type: xsd:string Ancestor: item Children: None
messageSet	Message set. Type: AvailabilityZoneMessageType Ancestor: item Children: item
item	Availability Zone message set. Type: AvailabilityZoneMessageType Ancestor: messageSet Children: message
message	The Availability Zone message. Type: xsd:string Ancestor: item Children: None

Examples

Example Request

This example displays information about Availability Zones that are available to the account.

```
<DescribeAvailabilityZones xmlns="http://ec2.amazonaws.com"
    <availabilityZoneSet/>
</DescribeAvailabilityZones>
```

Example Response

```
<DescribeAvailabilityZonesResponse xmlns="http://ec2.amazonaws.com"
    <availabilityZoneInfo>
        <item>
            <zoneName>us-east-1a</zoneName>
            <zoneState>available</zoneState>
        </item>
        <item>
            <zoneName>us-east-1b</zoneName>
            <zoneState>available</zoneState>
        </item>
        <item>
            <zoneName>us-east-1c</zoneName>
            <zoneState>available</zoneState>
        </item>
        <item>
            <zoneName>us-east-1d</zoneName>
            <zoneState>available</zoneState>
        </item>
```

```
</availabilityZoneInfo>
</DescribeAvailabilityZonesResponse>
```

Related Operations

- [RunInstances](#)
- [DescribeRegions](#)

DescribeBundleTasks

Description

Describes current bundling tasks. For more information on bundling instances, go to the

[Amazon Elastic Compute Cloud Developer Guide](#) or
[Amazon Elastic Compute Cloud Getting Started Guide](#).

Request Parameters

Name	Description	Required
DescribeBundleTasksType	<p>DescribeBundleTasksType element.</p> <p>Type: DescribeBundleTasksType</p> <p>Ancestor: None</p> <p>Children: bundlesSet</p>	
bundlesSet	<p>Set of bundle tasks.</p> <p>Type: DescribeBundleTasksInfoType</p> <p>Ancestor: DescribeBundleTasksType</p> <p>Children: item</p>	
item	<p>Information for one bundle task.</p> <p>Type: DescribeBundleTasksItemType</p> <p>Ancestor: bundlesSet</p> <p>Children: bundleId</p>	
bundleId	<p>The ID of the bundle task to describe.</p> <p>Type: xsd:string</p> <p>Default: If no ID is specified, all bundle tasks are described.</p> <p>Ancestor: item</p> <p>Children: None</p>	No

Response Elements

Name	Description
DescribeBundleTasksResponseType	<p>DescribeBundleTasksResponseType element.</p> <p>Type: DescribeBundleTasksResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, bundleInstanceTasksSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeBundleTasksResponseType</p> <p>Children: None</p>
bundleInstanceTasksSet	<p>Bundle task set.</p> <p>Type: BundleInstanceTasksSetType</p> <p>Ancestor: DescribeBundleTasksResponseType</p> <p>Children: item</p>
item	<p>Bundle task.</p> <p>Type: BundleInstanceTaskType</p> <p>Ancestor: bundleInstanceTasksSet</p> <p>Children: instanceId, bundleId, state, startTime, updateTime, storage, progress, and error</p>
instanceId	<p>Instance associated with this bundle task.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
bundleId	<p>Identifier for this task.</p> <p>Type: xsd:string</p>

	<p>Ancestor: item</p> <p>Children: None</p>
state	<p>The state of the task.</p> <p>Type: xsd:string</p> <p>Valid Values: pending waiting-for-shutdown storing canceling complete failed</p> <p>Ancestor: item</p> <p>Children: None</p>
startTime	<p>The time this task started.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
updateTime	<p>The time of the most recent update for the task.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
storage	<p>Amazon S3 storage locations.</p> <p>Type: BundleInstanceTaskStorageType</p> <p>Ancestor: item</p> <p>Children: s3</p>
s3	<p>Amazon S3 storage location.</p> <p>Type: BundleInstanceS3StorageType</p> <p>Ancestor: storage</p> <p>Children: bucket, prefix, awsAccessKeyId, uploadPolicy, and uploadPolicySignature</p>
bucket	<p>The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error.</p> <p>Type: xsd:string</p>

	<p>Ancestor: s3</p> <p>Children: None</p>
prefix	<p>Specifies the beginning of the file name of the AMI.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
awsAccessKeyId	<p>The Access Key ID of the owner of the Amazon S3 bucket.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicy	<p>A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
uploadPolicySignature	<p>The signature of the Base64 encoded JSON document.</p> <p>Type: xsd:string</p> <p>Ancestor: s3</p> <p>Children: None</p>
progress	<p>The level of task completion, in percent (e.g., 20%).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
error	<p>If the task fails, a description of the error.</p> <p>Type: BundleInstanceTaskErrorType</p> <p>Ancestor: item</p> <p>Children: code, message</p>

code	Error code. Type: xsd:string Ancestor: error Children: None
message	Error message. Type: xsd:string Ancestor: error Children: None

Examples

Example Request

This example describes the status of the bun-57a5403e bundle task.

```
<DescribeBundleTasks xmlns="http://ec2.amazonaws.com/c  
  <bundlesSet>  
    <item>  
      <bundleId>bun-57a5403e</bundleId>  
    </item>  
  </bundlesSet>  
</DescribeBundleTasks>
```

Example Response

```
<DescribeBundleTasksResponse xmlns="http://ec2.amazonaws.com/c  
  <bundleInstanceTasksSet>  
    <item>  
      <instanceId>i-12345678</instanceId>  
      <bundleId>bun-cla540a8</bundleId>  
      <state>canceling</state>  
      <startTime>2008-10-07T11:41:50.000Z</startTime>  
      <updateTime>2008-10-07T11:51:50.000Z</updateTi  
      <progress>20%</progress>  
      <storage>  
        <S3>  
          <bucket>my-bucket</bucket>  
          <prefix>winami</prefix>  
        </S3>
```

```
        </storage>
    </item>
<bundleInstanceTasksSet>
</DescribeBundleTasksResponse>
```

Related Operations

- [BundleInstance](#)
- [CancelBundleTask](#)

DescribeImageAttribute

Description

Returns information about an attribute of an AMI. Only one attribute can be specified per call.

Request Parameters

Name	Description	Required
DescribeImageAttributeType	DescribeImageAttributeType element. Type:	

DescribeImageAttributeType

Ancestor: None

Children: `imageId`, `DescribeImageAttributesGroup`

`imageId`

The ID of the AMI for which an attribute will be described.

Type: `xsd:string`

Default: None

Ancestor: `DescribeImageAttributeType`

Children: None

Yes

`DescribeImageAttributesGroup`

The image attributes group.

Type: [DescribeImageAttributesGroup](#)

Ancestor: `DescribeImageAttributeType`

Children: `launchPermission`, `productCodes`, `kernel`, `ramdisk`, and `blockDeviceMapping`

`launchPermission`

Describes the launch permissions associated with the AMI.

Type: [EmptyElementType](#)

Ancestor: `DescribeImageAttributesGroup`

Children: none

No

none

These element contains no options.

Type: `xsd:string`

Default: None

Ancestor: launchPermission

Children: None

No

productCodes

Describes the product code associated with the AMI.

Type: [EmptyElementType](#)

Ancestor: DescribeImageAttributesGroup

Children: none

No

none

These element contains no options.

Type: xsd:string

Default: None

Ancestor: productCodes

Children: None

No

kernel

Describes the ID of the kernel associated with the AMI.

Type: [EmptyElementType](#)

Ancestor: `DescribeImageAttributesGroup`

Children: none

No

none

These element contains no options.

Type: `xsd:string`

Default: None

Ancestor: `kernel`

Children: None

No

`ramdisk`

Describes the ID of the RAM disk associated with the AMI.

Type: [EmptyElementType](#)

Ancestor: `DescribeImageAttributesGroup`

Children: none

No

none

These element contains no options.

Type: `xsd:string`

Default: None

Ancestor: `ramdisk`

Children: None

No

`blockDeviceMapping`

Describes the mapping that defines native device names to use when exposing virtual devices.

Type: [EmptyElementType](#)

Ancestor: `DescribeImageAttributesGroup`

Children: none

No

none

These element contains no options.

Type: `xsd:string`

Default: None

Ancestor: `blockDeviceMapping`

Children: None

No

Response Elements

Name	Description
DescribeImageAttributeResponseType	<p>DescribeImageAttributeResponseType element.</p> <p>Type: DescribeImageAttributeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, imageId, launchPermission, productCodes, kernel, ramdisk, and blockDeviceMapping</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeImageAttributeResponseType</p> <p>Children: None</p>
imageId	<p>The ID of the AMI.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeImageAttributeResponseType</p> <p>Children: None</p>
launchPermission	<p>Launch permissions set.</p> <p>Type: LaunchPermissionListType</p> <p>Ancestor: DescribeImageAttributeResponseType</p> <p>Children: item</p>
item	<p>Information for launch permissions.</p> <p>Type: LaunchPermissionItemType</p> <p>Ancestor: launchPermission</p> <p>Children: userId, group</p>
userId	<p>AWS Access Key ID.</p> <p>Type: xsd:string</p>

	<p>Ancestor: <code>item</code> Children: None</p>
<code>group</code>	<p>Name of the group. Currently supports "all." Type: xsd:string Ancestor: <code>item</code> Children: None</p>
<code>productCodes</code>	<p>Product codes set. Type: ProductCodeListType Ancestor: <code>DescribeImageAttributeResponseType</code> Children: <code>item</code></p>
<code>item</code>	<p>Information for one product code. Type: ProductCodeItemType Ancestor: <code>productCodes</code> Children: <code>productCode</code></p>
<code>productCode</code>	<p>Product code. Type: xsd:string Ancestor: <code>item</code> Children: None</p>
<code>kernel</code>	<p>Kernel set. Type: NullableAttributeValue Ancestor: <code>DescribeImageAttributeResponseType</code> Children: <code>value</code></p>
<code>value</code>	<p>ID of the kernel or RAM disk. Type: xsd:string Ancestor: <code>kernel</code> Children: None</p>
<code>ramdisk</code>	RAM disk set.

	<p>Type: NullableAttributeValue Ancestor: <code>DescribeImageAttributeResponseType</code> Children: <code>value</code></p>
<code>value</code>	<p>ID of the kernel or RAM disk. Type: <code>xsd:string</code> Ancestor: <code>ramdisk</code> Children: None</p>
<code>blockDeviceMapping</code>	<p>Block device mapping set. Type: BlockDeviceMapping Ancestor: <code>DescribeImageAttributeResponseType</code> Children: <code>item</code></p>
<code>item</code>	<p>Information for one block device mapping. Type: BlockDeviceMappingItem Ancestor: <code>blockDeviceMapping</code> Children: <code>virtualName, deviceName</code></p>
<code>virtualName</code>	<p>The virtual name. Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>deviceName</code>	<p>The device name (e.g., <code>/dev/sdh</code>). Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>

Examples

Example Request

This example lists the launch permissions for the ami-61a54008 AMI

```
<DescribeImageAttribute xmlns="http://ec2.amazonaws.co
  <imageId>&exampleamiid;</imageId>
  <launchPermission/>
</DescribeImageAttribute>
```

Example Response

```
<DescribeImageAttributeResponse xmlns="http://ec2.amaz
  <imageId>ami-61a54008</imageId>
  <launchPermission>
    <item>
      <group>all</group>
    </item>
    <item>
      <userId>495219933132</userId>
    </item>
  </launchPermission>
</DescribeImageAttributeResponse>
```

Example Request

This example lists the product code for the ami-

2bb65342AMI.

```
<DescribeImageAttribute xmlns="http://ec2.amazonaws.co
  <imageId>&exampleamiid;</imageId>
  <productCodes/>
</DescribeImageAttribute>
```

Example Response

```
<DescribeImageAttributeResponse xmlns="http://ec2.amaz
  <imageId>ami-61a54008</imageId>
  <productCodes>
    <item>
      <productCode>774F4FF8</productCode>
    </item>
  </productCodes>
</Descripto
```

Related Operations

- [DescribeImages](#)
- [ModifyImageAttribute](#)
- [ResetImageAttribute](#)

DescribeImages

Description

Returns information about AMIs, AKIs, and ARIs. This includes image type, product codes, architecture, and kernel and RAM disk IDs. Images available to you include public images, private images that you own, and private images owned by other users for which you have explicit launch permissions.

Launch permissions fall into three categories:

Launch Permission	Description
public	The owner of the AMI granted launch permissions for the AMI to the <code>all</code> group. All users have launch permissions for these AMIs.
explicit	The owner of the AMI granted launch permissions to a specific user.
implicit	A user has implicit launch permissions for all AMIs he or she owns.

The list of AMIs returned can be modified by specifying AMI IDs, AMI owners, or users with launch permissions. If no options are specified, Amazon EC2 returns all AMIs for which the user has launch permissions.

If you specify one or more AMI IDs, only AMIs that have the specified IDs are returned. If you specify an invalid AMI ID, a fault is returned. If you specify an AMI ID for which you do not have access, it will not be

included in the returned results.

If you specify one or more AMI owners, only AMIs from the specified owners and for which you have access are returned. The results can include the account IDs of the specified owners, *amazon* for AMIs owned by Amazon or *self* for AMIs that you own.

If you specify a list of executable users, only users that have launch permissions for the AMIs are returned. You can specify account IDs (if you own the AMI(s)), *self* for AMIs for which you own or have explicit permissions, or *all* for public AMIs.



Note

Deregistered images are included in the returned results for an unspecified interval after deregistration.

Request Parameters

Name	Description	Required
DescribeImagesType	DescribeImagesType element. Type:	

DescribeImagesType

Ancestor: None

Children: executableBySet, imagesSet, and ownersSet

executableBySet

Executable set.

Type: [DescribeImagesExecutableBySetType](#)

Ancestor: DescribeImagesType

Children: item

Yes, but can be empty

item

Information for one user.

Type: [DescribeImagesExecutableByType](#)

Ancestor: executableBySet

Children: user

No

user

Returns AMIs for which the specified user has explicit launch permissions. The user ID can be a user's account ID,

Type: xsd:string

Default: None

Ancestor: item

Children: None

No

imagesSet

Image set.

Type: [DescribeImagesInfoType](#)

Ancestor: [DescribeImagesType](#)

Children: item

Yes, but can be empty

item

Information for one image.

Type: [DescribeImagesItemType](#)

Ancestor: imagesSet

Children: imageId

No

imageId

AMI IDs to describe.

Type: xsd:string

Default: Returns all AMIs.

Ancestor: item

Children: None

No

`ownersSet`

Information about an owner.

Type: [DescribeImagesOwnersType](#)

Ancestor: `DescribeImagesType`

Children: `item`

Yes, but can be empty

`item`

Information for one owner.

Type: [DescribeImagesOwnerType](#)

Ancestor: `ownersSet`

Children: `owner`

No

`owner`

Returns AMIs owned by the specified owner. Multiple owners can be specified. The IDs

Type: `xsd:string`

Default: None

Ancestor: item

Children: None

No

Response Elements

Name	Description
DescribeImagesResponseType	<p>DescribeImagesResponseType element.</p> <p>Type: DescribeImagesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, imagesSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeImagesResponseType</p> <p>Children: None</p>
imagesSet	<p>Image set.</p> <p>Type: DescribeImagesResponseInfoType</p> <p>Ancestor: DescribeImagesResponseType</p> <p>Children: item</p>
item	<p>Information for one image.</p> <p>Type: DescribeImagesResponseItemType</p> <p>Ancestor: imagesSet</p> <p>Children: imageId, imageLocation, imageState, imageOwnerId, isPublic, productCodes, architecture, imageType, kernelId, ramdiskId, and platform</p>
imageId	<p>The ID of the AMI.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
imageLocation	<p>The location of the AMI.</p> <p>Type: xsd:string</p>

	<p>Ancestor: <code>item</code> Children: None</p>
<code>imageState</code>	<p>Current state of the AMI. If the operation returns Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>imageOwnerId</code>	<p>AWS Access Key ID of the image owner. Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>isPublic</code>	<p>Returns Type: <code>xsd:boolean</code> Ancestor: <code>item</code> Children: None</p>
<code>productCodes</code>	<p>Product codes of the AMI. Type: <code>ProductCodesSetType</code> Ancestor: <code>item</code> Children: <code>item</code></p>
<code>item</code>	<p>Information for one product code. Type: <code>ProductCodesSetItemType</code> Ancestor: <code>productCodes</code> Children: <code>productCode</code></p>
<code>productCode</code>	<p>Product code. Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>architecture</code>	<p>The architecture of the image (</p>

	<p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
imageType	<p>The type of image (</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
kernelId	<p>The kernel associated with the image, if any. Only applicable for machine images.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
ramdiskId	<p>The RAM disk associated with the image, if any. Only applicable for machine images.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
platform	<p>The operating platform of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>

Examples

Example Request

This example describes the ami-be3adfd7 AMI.

```
<DescribeImages xmlns="http://ec2.amazonaws.com/doc/2008-05-09">
  <executableBySet>
    <item>
      <user>all</user>
    </item>
  </executableBySet>
  <ownersSet/>
  <imagesSet>
    <item>
      <imageId>ami-be3adfd7</imageId>
    </item>
  </imagesSet>
</DescribeImages>
```

Example Response

```
<DescribeImagesResponse xmlns="http://ec2.amazonaws.com/doc/2008-05-09">
  <imagesSet>
    <item>
      <imageId>ami-be3adfd7</imageId>
      <imageLocation>ec2-public-images/fedora-8-i386-kernel</imageLocation>
      <imageState>available</imageState>
      <imageOwnerId>206029621532</imageOwnerId>
      <isPublic>false</isPublic>
```

```
<architecture>i386</architecture>
<imageType>machine</imageType>
<kernelId>aki-4438dd2d</kernelId>
<ramdiskId>ari-4538dd2c</ramdiskId>
</item>
</imagesSet>
</DescribeImagesResponse>
```

Related Operations

- [DescribeInstances](#)
- [DescribeImageAttribute](#)

DescribeInstances

Description

Returns information about instances that you own.

If you specify one or more instance IDs, Amazon EC2 returns information for those instances. If you do not specify instance IDs, Amazon EC2 returns information for all relevant instances. If you specify an invalid instance ID, a fault is returned. If you specify an instance that you do not own, it will not be included in the returned results.

Recently terminated instances might appear in the returned results. This interval is usually less than one hour.

Request Parameters

Name	Description	Required
DescribeInstancesType	DescribeInstancesType element. Type:	

DescribeInstancesType

Ancestor: None

Children: instancesSet

instancesSet

Instances set.

Type: [DescribeInstancesInfoType](#)

Ancestor: DescribeInstancesType

Children: item

Yes, but can be empty

item

Information for one instance set.

Type: [DescribeInstancesItemType](#)

Ancestor: instancesSet

Children: instanceId

No

instanceId

Instance IDs to describe.

Type: xsd:string

Default: Returns all instances.

Ancestor: item

Children: None

No

Response Elements

Name	Description
DescribeInstancesResponseType	<p>DescribeInstancesResponseType element.</p> <p>Type: DescribeInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservationSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeInstancesResponseType</p> <p>Children: None</p>
reservationSet	<p>Reservation set.</p> <p>Type: ReservationSetType</p> <p>Ancestor: DescribeInstancesResponseType</p> <p>Children: item</p>
item	<p>Information for a reservation.</p> <p>Type: ReservationInfoType</p> <p>Ancestor: reservationSet</p> <p>Children: reservationId, ownerId, groupSet, instancesSet, and requesterId</p>
reservationId	<p>Unique ID of the reservation.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
ownerId	<p>AWS Access Key ID of the user who owns the reservation.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p>

	Children: None
groupSet	<p>Group set.</p> <p>Type: GroupsetType</p> <p>Ancestor: item</p> <p>Children: item</p>
item	<p>Group set item.</p> <p>Type: GroupItemType</p> <p>Ancestor: groupSet</p> <p>Children: groupId</p>
groupId	<p>Name of the security group.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
instancesSet	<p>Instance set.</p> <p>Type: RunningInstancesSetType</p> <p>Ancestor: item</p> <p>Children: item</p>
item	<p>Running instance set item.</p> <p>Type: RunningInstancesItemType</p> <p>Ancestor: instancesSet</p> <p>Children: instanceId, imageId, instanceState, privateDnsName, dnsName, reason, keyName, amiLaunchIndex, productCodes, instanceType, launchTime, placement, kernelId, ramdiskId, platform, monitoring, subnetId, vpcId, privateIpAddress, and ipAddress</p>
instanceId	<p>Unique ID of the instance launched.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p>

	Children: None
<code>imageId</code>	<p>Image ID of the AMI used to launch the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>instanceState</code>	<p>The current state of the instance.</p> <p>Type: InstanceStateType</p> <p>Ancestor: <code>item</code></p> <p>Children: <code>code, name</code></p>
<code>code</code>	<p>A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:</p> <p>Type: xsd:int</p> <p>Ancestor: <code>instanceState</code></p> <p>Children: None</p>
<code>name</code>	<p>The current state of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>instanceState</code></p> <p>Children: None</p>
<code>privateDnsName</code>	<p>The private DNS name assigned to the instance. This DNS name can only be used inside the Amazon EC2 network. This element remains empty until the instance enters a running state.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>dnsName</code>	<p>The public DNS name assigned to the instance. This DNS name is contactable from outside the Amazon EC2 network. This element remains empty until the instance enters a running state.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p>

	Children: None
reason	<p>Reason for the most recent state transition. This might be an empty string.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
keyName	<p>If this instance was launched with an associated key pair, this displays the key pair name.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
amiLaunchIndex	<p>The AMI launch index, which can be used to find this instance within the launch group. For more information, go to the Metadata section of the</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
productCodes	<p>Product codes attached to this instance.</p> <p>Type: ProductCodesSetType</p> <p>Ancestor: item</p> <p>Children: item</p>
item	<p>Information for one product code.</p> <p>Type: ProductCodesSetItemType</p> <p>Ancestor: productCodes</p> <p>Children: productCode</p>
productCode	<p>Product code.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>

<code>instanceType</code>	<p>The instance type.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>launchTime</code>	<p>The time the instance launched.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>placement</code>	<p>The location where the instance launched.</p> <p>Type: PlacementResponseType</p> <p>Ancestor: item</p> <p>Children: availabilityZone</p>
<code>availabilityZone</code>	<p>Returns the Availability Zones of the instances.</p> <p>Type: xsd:string</p> <p>Ancestor: placement</p> <p>Children: None</p>
<code>kernelId</code>	<p>Optional. Kernel associated with this instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>ramdiskId</code>	<p>Optional. RAM disk associated with this instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>platform</code>	<p>Platform of the instance (e.g., Windows).</p> <p>Type: xsd:string</p>

	<p>Ancestor: <code>item</code> Children: None</p>
<code>monitoring</code>	<p>Specifies whether monitoring is enabled for the instance. Type: InstanceMonitoringStateType Ancestor: <code>item</code> Children: <code>state</code></p>
<code>state</code>	<p>State of monitoring for the instance. Type: <code>xsd:string</code> Valid Values: <code>monitoring-enabled</code> (enabled) <code>monitoring-pending</code> (pending) <code>monitoring-disabled</code> (disabled) Ancestor: <code>monitoring</code> Children: None</p>
<code>subnetId</code>	<p>Specifies the subnet ID in which the instance is running (Amazon Virtual Private Cloud). Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>vpcId</code>	<p>Specifies the VPC in which the instance is running (Amazon Virtual Private Cloud). Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>privateIpAddress</code>	<p>Specifies the private IP address that is assigned to the instance (Amazon VPC). Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>ipAddress</code>	<p>Specifies the IP address of the instance. Type: <code>xsd:string</code></p>

	Ancestor: item Children: None
requesterId	ID of the requester. Type: xsd:string Ancestor: item Children: None

Examples

Example Request

This example describes the current state of the instances owned by this user.

```
<DescribeInstances xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <instancesSet/>
</DescribeInstances>
```

Example Response

```
<DescribeInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <reservationSet>
    <item>
      <reservationId>r-44a5402d</reservationId>
      <ownerId>UYY3TLBUXIE0N5NQVUUX60MPWBZIQNFM</ownerId>
      <groupSet>
        <item>
          <groupId>default</groupId>
        </item>
      </groupSet>
      <instancesSet>
        <item>
          <instanceId>i-28a64341</instanceId>
          <imageId>ami-6ea54007</imageId>
          <instanceState>
            <code>0</code>
            <name>running</name>
          </instanceState>
        </item>
      </instancesSet>
    </item>
  </reservationSet>
</DescribeInstancesResponse>
```

```
<privateDnsName>10-251-50-132.ec2.internal</privateDnsName>
<dnsName>ec2-72-44-33-4.compute-1.amazonaws.com</dnsName>
<keyName>example-key-name</keyName>
<amiLaunchIndex>23</amiLaunchIndex>
<productCodesSet>
    <item><productCode>774F4FF8</productCode></item>
</productCodesSet>
<instanceType>m1.large</instanceType>
<launchTime>2007-08-07T11:54:42.000Z</launchTime>
<placement>
    <availabilityZone>us-east-1k</availabilityZone>
</placement>
<kernelId>aki-ba3adfd3</kernelId>
<ramdiskId>ari-badbad00</ramdiskId>
</item>
<item>
    <instanceId>i-28a64435</instanceId>
    <imageId>ami-6ea54007</imageId>
    <instanceState>
        <code>0</code>
        <name>running</name>
    </instanceState>
    <privateDnsName>10-251-50-134.ec2.internal</privateDnsName>
    <dnsName>ec2-72-44-33-6.compute-1.amazonaws.com</dnsName>
    <keyName>example-key-name</keyName>
    <amiLaunchIndex>23</amiLaunchIndex>
    <productCodesSet>
        <item><productCode>774F4FF8</productCode></item>
    </productCodesSet>
    <instanceType>m1.large</instanceType>
    <launchTime>2007-08-07T11:54:42.000Z</launchTime>
    <placement>
        <availabilityZone>us-east-1k</availabilityZone>
    </placement>
    <kernelId>aki-ba3adfd3</kernelId>
    <ramdiskId>ari-badbad00</ramdiskId>
</item>
```

```
    </instancesSet>
    </item>
</reservationSet>
</DescribeInstancesResponse>
```

Related Operations

- [RunInstances](#)
- [TerminateInstances](#)

DescribeKeyPairs

Description

Returns information about key pairs available to you. If you specify key pairs, information about those key pairs is returned. Otherwise, information for all registered key pairs is returned.

Request Parameters

Name	Description	Required
DescribeKeyPairsType	DescribeKeyPairsType element. Type:	

DescribeKeyPairsType

Ancestor: None

Children: keySet

keySet

Set of key pairs.

Type: [DescribeKeyPairsInfoType](#)

Ancestor: [DescribeKeyPairsType](#)

Children: item

Yes, but can be empty

item

Information for a key pair.

Type: [DescribeKeyPairsItemType](#)

Ancestor: keySet

Children: keyName

No

keyName

Key pair to describe.

Type: xsd:string

Default: Describes all key pairs available to the account.

Ancestor: item

Children: None

No

Response Elements

Name	Description
DescribeKeyPairsResponseType	<p>DescribeKeyPairsResponseType element.</p> <p>Type: DescribeKeyPairsResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, keySet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeKeyPairsResponseType</p> <p>Children: None</p>
keySet	<p>Information for a key pair.</p> <p>Type: DescribeKeyPairsResponseInfoType</p> <p>Ancestor: DescribeKeyPairsResponseType</p> <p>Children: item</p>
item	<p>Information for a key pair.</p> <p>Type: DescribeKeyPairsResponseItemType</p> <p>Ancestor: keySet</p> <p>Children: keyName, keyFingerprint</p>
keyName	<p>The key pair name provided in the original request.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
keyFingerprint	<p>A SHA-1 digest of the DER encoded private key.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p>

Children: None

Examples

Example Request

This example describes the state of the gsg-keypair key.

```
<DescribeKeyPairs xmlns="http://ec2.amazonaws.com/doc/2012-08-15">
  <keySet>
    <item>
      <keyName>gsg-keypair</keyName>
    </item>
  </keySet>
</DescribeKeyPairs>
```

Example Response

```
<DescribeKeyPairsResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15">
  <keySet>
    <item>
      <keyName>gsg-keypair</keyName>
      <keyFingerprint>1f:51:ae:28:bf:89:e9:d8:1f:25:5c:4d:3e:5b:4f:2d:4b</keyFingerprint>
    </item>
  </keySet>
</DescribeKeyPairsResponse>
```

Related Operations

- [DescribeAvailabilityZones](#)
- [RunInstances](#)

DescribeRegions

Description

Describes regions that are currently available to the account.

Request Parameters

Name	Description	Required
DescribeRegionsType	DescribeRegionsType element. Type:	

DescribeRegionsType

Ancestor: None

Children: regionSet

regionSet

Set of regions.

Type: [DescribeRegionsSetType](#)

Ancestor: DescribeRegionsType

Children: item

item

Information for a region.

Type: [DescribeRegionsSetItemType](#)

Ancestor: regionSet

Children: regionName

regionName

Name of a region.

Type: xsd:string

Default: Describes all regions available to the account.

Ancestor: item

Children: None

No

Response Elements

Name	Description
DescribeRegionsResponseType	<p>DescribeRegionsResponseType element.</p> <p>Type: DescribeRegionsResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, regionInfo</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeRegionsResponseType</p> <p>Children: None</p>
regionInfo	<p>Region set.</p> <p>Type: RegionSetType</p> <p>Ancestor: DescribeRegionsResponseType</p> <p>Children: item</p>
item	<p>Information for a region.</p> <p>Type: RegionItemType</p> <p>Ancestor: regionInfo</p> <p>Children: regionName, regionEndpoint</p>
regionName	<p>Name of the region.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
regionEndpoint	<p>Region service endpoint.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p>

Children: None

Examples

Example Request

This example displays regions that are available to the account.

```
<DescribeRegions xmlns="http://ec2.amazonaws.com/doc/2013-10-15">
  <regionSet/>
</DescribeRegions>
```

Example Response

```
<DescribeRegionsResponse xmlns="http://ec2.amazonaws.com/doc/2013-10-15">
  <regionInfo>
    <item>
      <regionName>us-east-1</regionName>
      <regionEndpoint>us-east-1.ec2.amazonaws.com</regionEndpoint>
    </item>
    <item>
      <regionName>eu-west-1</regionName>
      <regionUrl>eu-west-1.ec2.amazonaws.com</regionUrl>
    </item>
  </regionInfo>
</DescribeRegionsResponse>
```

Related Operations

- [DescribeAvailabilityZones](#)
- [RunInstances](#)

DescribeReservedInstances

Description

Describes Reserved Instances that you purchased. For more information about Reserved Instances, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
DescribeReservedInstancesType	DescribeReservedInstancesType element. Type: DescribeReservedInstancesType Ancestor: None Children: reservedInstancesSet	
reservedInstancesSet	Set of Reserved Instances. Type: DescribeReservedInstancesSetType Ancestor: DescribeReservedInstancesType Children: item	No
item	Reserved Instances item. Type: DescribeReservedInstancesSetItemType Ancestor: reservedInstancesSet Children: reservedInstancesId	No
reservedInstancesId	IDs of the Reserved Instance to describe. Type: xsd:string Default: None Ancestor: item Children: None	No

Response Elements

Name	Description
DescribeReservedInstancesResponseType	<p>DescribeReservedInstancesResponseType element.</p> <p>Type: DescribeReservedInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservedInstancesSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeReservedInstancesResponseType</p> <p>Children: None</p>
reservedInstancesSet	<p>Reserved Instances set.</p> <p>Type: DescribeReservedInstancesResponseType</p> <p>Ancestor: DescribeReservedInstancesResponseType</p> <p>Children: item</p>
item	<p>Reserved Instance set.</p> <p>Type: DescribeReservedInstancesResponseType</p> <p>Ancestor: reservedInstancesSet</p> <p>Children: reservedInstancesId, instanceType, availabilityZone, start, duration, fixedPrice, usagePrice, instanceCount, productDescription, and state</p>
reservedInstancesId	<p>The ID of the Reserved Instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceType	<p>The instance type on which the Reserved Instance can be used.</p> <p>Type: xsd:string</p>

	<p>Ancestor: item</p> <p>Children: None</p>
availabilityZone	<p>The Availability Zone in which the Reserved Instance can be used.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
start	<p>The date and time the Reserved Instance started.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
duration	<p>The duration of the Reserved Instance, in seconds.</p> <p>Type: xs:long</p> <p>Ancestor: item</p> <p>Children: None</p>
fixedPrice	<p>The purchase price of the Reserved Instance.</p> <p>Type: xs:double</p> <p>Ancestor: item</p> <p>Children: None</p>
usagePrice	<p>The usage price of the Reserved Instance, per hour.</p> <p>Type: xs:double</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceCount	<p>The number of Reserved Instances purchased.</p> <p>Type: xs:integer</p> <p>Ancestor: item</p> <p>Children: None</p>

<code>productDescription</code>	<p>The Reserved Instance description.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>state</code>	<p>The state of the Reserved Instance purchase.</p> <p>Type: xsd:string</p> <p>Valid Values: <code>pending-payment</code> <code>active</code> <code>payment-failed</code> <code>retired</code></p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>

Examples

Example Request

This example describes Reserved Instances owned by the account.

```
<DescribeReservedInstances xmlns="http://ec2.amazonaws.com/doc/2012-08-15/"></pre>
```

Example Response

```
<DescribeReservedInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <reservedInstancesSet>
    <item>
      <reservedInstancesId>4b2293b4-5813-4cc8-9ce3-195...
      <instanceType>m1.small</instanceType>
      <availabilityZone>us-east-1a</availabilityZone>
      <duration>12</duration>
      <usagePrice>0.00</usagePrice>
      <fixedPrice>0.00</fixedPrice>
      <instanceCount>19</instanceCount>
      <productDescription>m1.small offering in us-east-1a</productDescription>
      <state>Active</state>
    </item>
  </reservedInstancesSet>
</DescribeReservedInstancesResponse>
```

Related Operations

- [PurchaseReservedInstancesOffering](#)
- [DescribeReservedInstancesOfferings](#)

DescribeReservedInstances

Description

Describes Reserved Instance offerings that are available for purchase. With Amazon EC2 Reserved Instances, you purchase the right to launch Amazon EC2 instances for a period of time (without getting insufficient capacity errors) and pay a lower usage rate for the actual time used. For more information about Reserved Instances, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
DescribeReservedInstancesOfferingsType	<p>DescribeReservedInstancesOfferingsType element.</p> <p>Type: DescribeReservedInstancesOfferingsType</p> <p>Ancestor: None</p> <p>Children: reservedInstancesOfferingsSet, instanceType, availabilityZone, and productDescription</p>	
reservedInstancesOfferingsSet	<p>Set of Reserved Instances.</p> <p>Type: DescribeReservedInstancesOfferingsSetType</p> <p>Ancestor: DescribeReservedInstancesOfferingsType</p> <p>Children: item</p>	No
item	<p>Reserved Instances item.</p> <p>Type: DescribeReservedInstancesOfferingsSetItemType</p> <p>Ancestor: reservedInstancesOfferingsSet</p> <p>Children: reservedInstancesOfferingId</p>	No
reservedInstancesOfferingId	<p>ID of the Reserved Instances to describe.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: item</p> <p>Children: None</p>	No
instanceType	<p>The instance type on which the Reserved Instance can be used.</p> <p>Type: xsd:string</p> <p>Default: None</p>	No

	<p>Ancestor: DescribeReservedInstancesOfferingsType</p> <p>Children: None</p>	
availabilityZone	<p>The Availability Zone in which the Reserved Instance can be used.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: DescribeReservedInstancesOfferingsType</p> <p>Children: None</p>	No
productDescription	<p>The Reserved Instance description.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: DescribeReservedInstancesOfferingsType</p> <p>Children: None</p>	No

Response Elements

Name	Description
DescribeReservedInstancesOfferingsResponseType	<p>DescribeReservedInstancesOfferingsResponseType element.</p> <p>Type: DescribeReservedInstancesOfferingsResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservedInstancesOfferingsSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeReservedInstancesOfferingsResponseType</p> <p>Children: None</p>
reservedInstancesOfferingsSet	<p>Reserved Instances offerings set.</p> <p>Type: DescribeReservedInstancesOfferingsResponseType</p> <p>Ancestor: DescribeReservedInstancesOfferingsResponseType</p> <p>Children: item</p>
item	<p>Reserved Instance offerings set.</p> <p>Type: DescribeReservedInstancesOfferingsResponseType</p> <p>Ancestor: reservedInstancesOfferingsSet</p> <p>Children: reservedInstancesOfferingId, instanceType, availabilityZone, duration, fixedPrice, usagePrice, and productDescription</p>
reservedInstancesOfferingId	<p>The ID of the Reserved Instance offering.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>

<code>instanceType</code>	<p>The instance type on which the Reserved Instance can be used.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>availabilityZone</code>	<p>The Availability Zone in which the Reserved Instance can be used.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>duration</code>	<p>The duration of the Reserved Instance, in seconds.</p> <p>Type: xs:long</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>fixedPrice</code>	<p>The purchase price of the Reserved Instance.</p> <p>Type: xs:double</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>usagePrice</code>	<p>The usage price of the Reserved Instance, per hour.</p> <p>Type: xs:double</p> <p>Ancestor: item</p> <p>Children: None</p>
<code>productDescription</code>	<p>The Reserved Instance description.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>

Examples

Example Request

This example describes available Reserved Instance offerings.

```
<DescribeReservedInstancesOfferings xmlns="http://ec2.
```

Example Response

```
<DescribeReservedInstancesOfferingsResponse xmlns="http://ec2.amazonaws.com/doc/2011-10-15/">  <reservedInstancesOfferingsSet>    <item>      <reservedInstancesOfferingId>4b2293b4-5813-4cc8-8f3d-000000000000</reservedInstancesOfferingId>      <instanceType>m1.small</instanceType>      <availabilityZone>us-east-1a</availabilityZone>      <duration>12</duration>      <fixedPrice>0.00</fixedPrice>      <usagePrice>0.00</usagePrice>      <productDescription>m1.small offering in us-east-1a</productDescription>    </item>  </reservedInstancesOfferingsSet></DescribeReservedInstancesOfferingsResponse>
```

Related Operations

- [PurchaseReservedInstancesOffering](#)
- [DescribeReservedInstances](#)

DescribeSecurityGroups

Description

Returns information about security groups that you own.

Request Parameters

Name	Description	Required
DescribeSecurityGroupsType	DescribeSecurityGroupsType element. Type:	

DescribeSecurityGroupsType

Ancestor: None

Children: securityGroupSet

securityGroupSet

Set of security groups.

Type: [DescribeSecurityGroupsSetType](#)

Ancestor: DescribeSecurityGroupsType

Children: item

item

Information for a security group.

Type: [DescribeSecurityGroupsSetItemType](#)

Ancestor: securityGroupSet

Children: groupName

groupName

Name of the security group.

Type: xsd:string

Default: Describes all groups within the account.

Ancestor: item

Children: None

No

Response Elements

Name	Description
DescribeSecurityGroupsResponseType	<p>DescribeSecurityGroupsResponseType element.</p> <p>Type: DescribeSecurityGroupsResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, securityGroupInfo</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeSecurityGroupsResponseType</p> <p>Children: None</p>
securityGroupInfo	<p>Security group set.</p> <p>Type: SecurityGroupSetType</p> <p>Ancestor: DescribeSecurityGroupsResponseType</p> <p>Children: item</p>
item	<p>Information for a security group.</p> <p>Type: SecurityGroupItemType</p> <p>Ancestor: securityGroupInfo</p> <p>Children: ownerId, groupName, groupDescription, and ipPermissions</p>
ownerId	<p>AWS Access Key ID of the owner of the security group.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
groupName	<p>Name of the security group.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p>

	Children: None
groupDescription	<p>Description of the security group.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
ipPermissions	<p>Set of IP permissions associated with the security group.</p> <p>Type: IpPermissionSetType</p> <p>Ancestor: item</p> <p>Children: item</p>
item	<p>Set of IP permissions.</p> <p>Type: IpPermissionType</p> <p>Ancestor: ipPermissions</p> <p>Children: ipProtocol, fromPort, toPort, groups, and ipRanges</p>
ipProtocol	<p>IP protocol.</p> <p>Type: xsd:string</p> <p>Valid Values: tcp udp icmp</p> <p>Ancestor: item</p> <p>Children: None</p>
fromPort	<p>Start of port range for the TCP and UDP protocols, or an ICMP type number. An ICMP type number of -1 indicates a wildcard (i.e., any ICMP type number).</p> <p>Type: xsd:int</p> <p>Ancestor: item</p> <p>Children: None</p>
toPort	<p>End of port range for the TCP and UDP protocols, or an ICMP code. An ICMP code of -1 indicates a wildcard (i.e., any ICMP code).</p> <p>Type: xsd:int</p>

	<p>Ancestor: <code>item</code> Children: None</p>
<code>groups</code>	<p>List of security group and user ID pairs. Type: <code>UserIdGroupPairSetType</code> Ancestor: <code>item</code> Children: <code>item</code></p>
<code>item</code>	<p>Information for one security group. Type: <code>UserIdGroupPairType</code> Ancestor: <code>groups</code> Children: <code>userId</code>, <code>groupName</code></p>
<code>userId</code>	<p>AWS User ID of an account. Cannot be used when specifying a CIDR IP address. Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>groupName</code>	<p>Name of the security group. Cannot be used when specifying a CIDR IP address. Type: <code>xsd:string</code> Ancestor: <code>item</code> Children: None</p>
<code>ipRanges</code>	<p>IP ranges. Type: <code>IpRangeSetType</code> Ancestor: <code>item</code> Children: <code>item</code></p>
<code>item</code>	<p>Information for one IP range. Type: <code>IpRangeItemType</code> Ancestor: <code>ipRanges</code> Children: <code>cidrIp</code></p>

cidrIp

CIDR range.

Type: xsd:string

Ancestor: item

Children: None

Examples

Example Request

This example returns information about two security groups that are configured for the account.

```
<DescribeSecurityGroups xmlns="http://ec2.amazonaws.co
  <securityGroupSet>
    <item>
      <groupName>WebServers</groupName>
    </item>
    <item>
      <groupName>RangedPortsBySource</groupName>
    </item>
  </securityGroupSet>
</DescribeSecurityGroups>
```

Example Response

```
<DescribeSecurityGroupsResponse xmlns="http://ec2.amaz
  <securityGroupInfo>
    <item>
      <ownerId>UYY3TLBUXIE0N5NQVUUX60MPWBZIQNFM</owner
      <groupName>WebServers</groupName>
      <groupDescription>Web Servers</groupDescription>
      <ipPermissions>
        <item>
          <ipProtocol>tcp</ipProtocol>
          <fromPort>80</fromPort>
          <toPort>80</toPort>
```

```
<groups/>
<ipRanges>
  <item>
    <cidrIp>0.0.0.0/0</cidrIp>
  </item>
</ipRanges>
</item>
</ipPermissions>
</item>
<item>
  <ownerId>UYY3TLBUXIE0N5NQVUUX60MPWBZI0NFM</ownerId>
  <groupName>RangedPortsBySource</groupName>
  <groupDescription>Group A</groupDescription>
  <ipPermissions>
    <item>
      <ipProtocol>tcp</ipProtocol>
      <fromPort>6000</fromPort>
      <toPort>7000</toPort>
      <groups/>
      <ipRanges/>
    </item>
  </ipPermissions>
</item>
</securityGroupInfo>
</DescribeSecurityGroupsResponse>
```

Related Operations

- [CreateSecurityGroup](#)
- [AuthorizeSecurityGroupIngress](#)
- [RevokeSecurityGroupIngress](#)
- [DeleteSecurityGroup](#)

DescribeSnapshotAttribute

Description

Returns information about an attribute of a snapshot.
Only one attribute can be specified per call.

Request Parameters

Name	Description	Required
DescribeSnapshotAttributeType	DescribeSnapshotAttributeType element. Type:	

DescribeSnapshotAttributeType

Ancestor: None

Children: snapshotId,

DescribeSnapshotAttributesGroup

snapshotId

The ID of the Amazon EBS snapshot.

Type: xsd:string

Default: None

Ancestor: DescribeSnapshotAttributeType

Children: None

No

DescribeSnapshotAttributesGroup

Describe snapshot attribute element.

Type: [DescribeSnapshotAttributesGroup](#)

Ancestor: `DescribeSnapshotAttributeType`

Children: `createVolumePermission`

`createVolumePermission`

Describes the snapshot attributes group.

Type: [EmptyElementType](#)

Ancestor: `DescribeSnapshotAttributesGroup`

Children: none

none

These element contains no options.

Type: `xsd:string`

Default: None

Ancestor: `createVolumePermission`

Children: None

No

Response Elements

Name	Description
DescribeSnapshotAttributeResponseType	<p>DescribeSnapshotAttributeResponseType element.</p> <p>Type: DescribeSnapshotAttributeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, snapshotId, and createVolumePermission</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeSnapshotAttributeResponseType</p> <p>Children: None</p>
snapshotId	<p>The ID of the Amazon EBS snapshot.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeSnapshotAttributeResponseType</p> <p>Children: None</p>
createVolumePermission	<p>Create volume permission element.</p> <p>Type: CreateVolumePermissionListType</p> <p>Ancestor: DescribeSnapshotAttributeResponseType</p> <p>Children: item</p>
item	<p>Volume permission item.</p> <p>Type: CreateVolumePermissionItemType</p> <p>Ancestor: createVolumePermission</p> <p>Children: userId, group</p>
userId	<p>User ID of a user that can create volumes from the snapshot.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p>

	Children: None
group	<p>Group that is allowed to create volumes from the snapshot (currently supports "all").</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>

Examples

Example Request

This example describes permissions for the snap-78a54011 snapshot.

```
<DescribeSnapshotAttribute xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <snapshotId>snap-78a54011</snapshotId>
  <createVolumePermission>all</createVolumePermission>
</DescribeSnapshotAttribute>
```

Example Response

```
<DescribeSnapshotAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <snapshotId>snap-78a54011</snapshotId>
  <createVolumePermission>
    <item>
      <group>all</group>
    </item>
  </createVolumePermission>
</DescribeSnapshotAttributeResponse>
```

Related Operations

- [ModifySnapshotAttribute](#)
- [DescribeSnapshots](#)
- [ResetSnapshotAttribute](#)
- [CreateSnapshot](#)

DescribeSnapshots

Description

Returns information about Amazon EBS snapshots available to the user. Information returned includes volume ID, status, start time, progress, owner ID, volume size, and description. Snapshots available to the user include public snapshots available for any user to launch, private snapshots owned by the user making the request, and private snapshots owned by other users for which the user granted explicit create volume permissions.

The create volume permissions fall into 3 categories:

Permission	Description
public	The owner of the snapshot granted create volume permissions for the snapshot to the all group. All users have create volume permissions for these snapshots.
explicit	The owner of the snapshot granted create volume permissions to a specific user.
implicit	A user has implicit create volume permissions for all snapshots he or she owns.

The list of snapshots returned can be modified by specifying snapshot IDs, snapshot owners, or users with create volume permissions. If no options are specified, Amazon EC2 returns all snapshots for which the user has create volume permissions.

If you specify one or more snapshot IDs, only snapshots that have the specified IDs are returned. If you specify an

invalid snapshot ID, a fault is returned. If you specify a snapshot ID for which you do not have access, it will not be included in the returned results.

If you specify one or more snapshot owners, only snapshots from the specified owners and for which you have access are returned. The results can include the AWS Account IDs of the specified owners, amazon for snapshots owned by Amazon or self for snapshots that you own.

If you specify a list of restorable users, only users that have create snapshot permissions for the snapshots are returned. You can specify AWS Account IDs (if you own the snapshot(s)), self for snapshots for which you own or have explicit permissions, or all for public snapshots.

Request Parameters

Name	Description	Required
DescribeSchemasType	DescribeSchemasType element. Type:	

DescribeSchemasType

Ancestor: None

Children: snapshotSet, ownersSet, and
restorableBySet

snapshotSet

Set of snapshots.

Type: [DescribeSchemasSetType](#)

Ancestor: DescribeSchemasType

Children: item

item

Information for a snapshot.

Type: [DescribeSchemasSetItemType](#)

Ancestor: snapshotSet

Children: snapshotId

snapshotId

The ID of the Amazon EBS snapshot.

Type: xsd:string

Default: Describes snapshots for which you have launch permissions.

Ancestor: item

Children: None

No

ownersSet

Set of owners that can create volumes from the instance.

Type: [DescribeSnapshotsOwnersType](#)

Ancestor: DescribeSnapshotsType

Children: item

item

Describe snapshot item.

Type: [DescribeSchemasOwnerType](#)

Ancestor: ownersSet

Children: owner

owner

Returns snapshots owned by the specified owner.
Multiple owners can be specified.

Type: xsd:string

Valid Values: self | amazon | AWS Account ID

Default: None

Ancestor: item

Children: None

No

restorableBySet

Set of users that can create volumes from the snapshot.

Type: [DescribeSchemasRestorableBySetType](#)

Ancestor: `DescribeSnapshotsType`

Children: `item`

`item`

Restorable by set type `item`.

Type: [`DescribeSnapshotsRestorableByType`](#)

Ancestor: `restorableBySet`

Children: `user`

`user`

Account ID of a user that can create volumes from the snapshot.

Type: `xsd:string`

Default: None

Ancestor: `item`

Children: None

No

Response Elements

Name	Description
DescribeSnapshotsResponseType	<p>DescribeSnapshotsResponseType element.</p> <p>Type: DescribeSnapshotsResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, snapshotSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeSnapshotsResponseType</p> <p>Children: None</p>
snapshotSet	<p>Snapshot set.</p> <p>Type: DescribeSnapshotsSetResponseType</p> <p>Ancestor: DescribeSnapshotsResponseType</p> <p>Children: item</p>
item	<p>Information for a snapshot.</p> <p>Type: DescribeSnapshotsSetItemResponseType</p> <p>Ancestor: snapshotSet</p> <p>Children: snapshotId, volumeId, status, startTime, progress, ownerId, and description</p>
snapshotId	<p>The ID of the snapshot.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p>

	<p>Ancestor: item</p> <p>Children: None</p>
status	<p>Snapshot state (e.g.,</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
startTime	<p>Time stamp when the snapshot was initiated.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
progress	<p>The progress of the snapshot, in percentage.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
ownerId	<p>AWS Access Key ID of the user who owns the snapshot.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
description	<p>Description of the snapshot.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>

Examples

Example Request

This example describes snapshot snap-78a54011.

```
<DescribeSnapshots xmlns="http://ec2.amazonaws.com/doc/2012-08-15">
  <snapshotSet>
    <item>
      <snapshotId>snap-78a54011</snapshotId>
    </item>
  </snapshotSet>
</DescribeSnapshots>
```

Example Response

```
<DescribeSnapshotsResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15">
  <snapshotSet>
    <item>
      <snapshotId>snap-78a54011</snapshotId>
      <volumeId>vol-4d826724</volumeId>
      <status>pending</status>
      <startTime>2008-05-07T12:51:50.000Z</startTime>
      <progress>80%</progress>
      <ownerId>218213537122</ownerId>
      <volumeSize>10</volumeSize>
      <description>Daily Backup</description>
    </item>
  </snapshotSet>
</DescribeSnapshotsResponse>
```

Related Operations

- [CreateSnapshot](#)
- [DeleteSnapshot](#)

DescribeVolumes

Description

Describes the specified Amazon EBS volumes that you own. If you do not specify one or more volume IDs, Amazon EBS describes all volumes that you own. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
DescribeVolumesType	DescribeVolumesType element. Type: DescribeVolumesType Ancestor: None Children: volumeSet	
volumeSet	Set of volumes. Type: DescribeVolumesSetType Ancestor: DescribeVolumesType Children: item	
item	Information for a volume. Type: DescribeVolumesSetItemType Ancestor: volumeSet Children: volumeId	
volumeId	The ID of the volume to list. Type: xsd:string Default: Describes all volumes that you own. Ancestor: item Children: None	No

Response Elements

Name	Description
DescribeVolumesResponseType	<p>DescribeVolumesResponseType element.</p> <p>Type: DescribeVolumesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, volumeSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DescribeVolumesResponseType</p> <p>Children: None</p>
volumeSet	<p>Volume set.</p> <p>Type: DescribeVolumesSetResponseType</p> <p>Ancestor: DescribeVolumesResponseType</p> <p>Children: item</p>
item	<p>Information for a volume.</p> <p>Type: DescribeVolumesSetItemResponseType</p> <p>Ancestor: volumeSet</p> <p>Children: volumeId, size, snapshotId, availabilityZone, status, createTime, and attachmentSet</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
size	<p>The size of the volume, in GiBs.</p> <p>Type: xsd:string</p>

	<p>Ancestor: item Children: None</p>
snapshotId	<p>Snapshot from which the volume was created (optional). Type: xsd:string Ancestor: item Children: None</p>
availabilityZone	<p>Availability Zone in which the volume was created. Type: xsd:string Ancestor: item Children: None</p>
status	<p>Volume state (e.g., Type: xsd:string Ancestor: item Children: None</p>
createTime	<p>Time stamp when volume creation was initiated. Type: xsd:dateTime Ancestor: item Children: None</p>
attachmentSet	<p>Attachment set. Type: AttachmentSetResponseType Ancestor: item Children: item</p>
item	<p>Information for a attachment set. Type: AttachmentSetItemResponseType Ancestor: attachmentSet Children: volumeId, instanceId, device, status, and attachTime</p>
volumeId	The ID of the volume.

	<p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
device	<p>Specifies how the device is exposed to the instance (e.g., /dev/sdh).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
status	<p>Attachment state.</p> <p>Type: xsd:string</p> <p>Valid Values: attaching attached detaching detached</p> <p>Ancestor: item</p> <p>Children: None</p>
attachTime	<p>Time stamp when the association was created.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>

Examples

Example Request

This example describes all volumes associated with your account.

```
<DescribeVolumes xmlns="http://ec2.amazonaws.com/doc/2
```

Example Response

```
<DescribeVolumesResponse xmlns="http://ec2.amazonaws.com/doc/2008-05-07">
<volumeSet>
  <item>
    <volumeId>vol-4282672b</volumeId>
    <size>800</size>
    <snapshotId/>
    <availabilityZone>us-east-1a</availabilityZone>
    <status>in-use</status>
    <createTime>2008-05-07T11:51:50.000Z</createTime>
    <attachmentSet>
      <item>
        <volumeId>vol-4282672b</volumeId>
        <instanceId>i-6058a509</instanceId>
        <device>/dev/sdh</device>
        <status>attached</status>
        <attachTime>2008-05-07T12:51:50.000Z</attachTi
      </item>
    </attachmentSet>
  </item>
</volumeSet>
</DescribeVolumesResponse>
```


Related Operations

- [CreateSnapshot](#)
- [DeleteSnapshot](#)

DetachVolume

Description

Detaches an Amazon EBS volume from an instance. For more information about Amazon EBS, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)



Important

Make sure to unmount any file systems on the device within your operating system before detaching the volume. Failure to unmount file systems, or otherwise properly release the device from use, can result in lost data and will corrupt the file system.

Request Parameters

Name	Description	Required
DetachVolumeType	<p>DetachVolumeType element.</p> <p>Type: DetachVolumeType</p> <p>Ancestor: None</p> <p>Children: volumeId, instanceId, device, and force</p>	
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: DetachVolumeType</p> <p>Children: None</p>	Yes
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: DetachVolumeType</p> <p>Children: None</p>	No
device	<p>The device name.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: DetachVolumeType</p> <p>Children: None</p>	No
force	<p>Forces detachment if the previous detachment attempt did not occur cleanly (logging into an instance, unmounting the volume, and detaching normally). This option can lead to data loss or a corrupted file system. Use this option only as a last resort to detach a volume from a failed instance. The instance will not have an opportunity to flush file system caches nor file system meta data. If you use this option, you must perform file system check and repair procedures.</p>	No

	Type: xsd:boolean	
	Default: None	
	Ancestor: <code>DetachVolumeType</code>	
	Children: None	

Response Elements

Name	Description
DetachVolumeResponseType	<p>DetachVolumeResponseType element.</p> <p>Type: DetachVolumeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, volumeId, instanceId, device, status, and attachTime</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p> <p>Children: None</p>
volumeId	<p>The ID of the volume.</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p> <p>Children: None</p>
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p> <p>Children: None</p>
device	<p>The device as it is exposed to the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p> <p>Children: None</p>
status	<p>Attachment state (e.g.,</p> <p>Type: xsd:string</p> <p>Ancestor: DetachVolumeResponseType</p>

	Children: None
attachTime	<p>Time stamp when the association was created.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: <code>DetachVolumeResponseType</code></p> <p>Children: None</p>

Examples

Example Request

This example detaches volume vol-4d826724.

```
<DetachVolume xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <volumeId>vol-4d826724</volumeId>
  <instanceId>i-6058a509</instanceId>
</DetachVolume>
```

Example Response

```
<DetachVolumeResponse xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <volumeId>vol-4d826724</volumeId>
  <instanceId>i-6058a509</instanceId>
  <device>/dev/sdh</device>
  <status>detaching</status>
  <attachTime>2008-05-08T11:51:50.000Z</attachTime>
</DetachVolumeResponse>
```

Related Operations

- [CreateVolume](#)
- [DeleteVolume](#)
- [DescribeVolumes](#)
- [AttachVolume](#)

DisassociateAddress

Description

Disassociates the specified elastic IP address from the instance to which it is assigned. This is an idempotent operation. If you enter it more than once, Amazon EC2 does not return an error.

Request Parameters

Name	Description	Required
DisassociateAddressType	DisassociateAddressType element. Type:	

DisassociateAddressType

Ancestor: None

Children: publicIp

publicIp

IP address that you are disassociating from the instance.

Type: xsd:string

Default: None

Ancestor: DisassociateAddressType

Children: None

Yes

Response Elements

Name	Description
DisassociateAddressResponseType	<p>DisassociateAddressResponseType element.</p> <p>Type: DisassociateAddressResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: DisassociateAddressResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: DisassociateAddressResponseType</p> <p>Children: None</p>

Examples

Example Request

This example disassociates the 67.202.55.255 IP address from the instance to which it is assigned.

```
<DisassociateAddress xmlns="http://ec2.amazonaws.com/c  
    <publicIp>67.202.55.255</publicIp>  
</DisassociateAddress>
```

Example Response

```
<DisassociateAddressResponse xmlns="http://ec2.amazonaws.com/c  
    <return>true</return>  
</DisassociateAddressResponse>
```

Related Operations

- [AllocateAddress](#)
- [DescribeAddresses](#)
- [ReleaseAddress](#)
- [AssociateAddress](#)

GetConsoleOutput

Description

Retrieves console output for the specified instance.

Instance console output is buffered and posted shortly after instance boot, reboot, and termination. Amazon EC2 preserves the most recent 64 KB output which will be available for at least one hour after the most recent post.

Request Parameters

Name	Description	Required
GetConsoleOutputType	GetConsoleOutputType element. Type:	

[GetConsoleOutputType](#)

Ancestor: None

Children: instanceId

instanceId

ID of the instance for which you want console output.

Type: xsd:string

Default: None

Ancestor: GetConsoleOutputType

Children: None

Yes

Response Elements

Name	Description
GetConsoleOutputResponseType	<p>GetConsoleOutputResponseType element.</p> <p>Type: GetConsoleOutputResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, instanceId, timestamp, and output</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: GetConsoleOutputResponseType</p> <p>Children: None</p>
instanceId	<p>The instance ID.</p> <p>Type: xsd:string</p> <p>Ancestor: GetConsoleOutputResponseType</p> <p>Children: None</p>
timestamp	<p>The time the output was last updated.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: GetConsoleOutputResponseType</p> <p>Children: None</p>
output	<p>The console output, Base64 encoded.</p> <p>Type: xsd:string</p> <p>Ancestor: GetConsoleOutputResponseType</p> <p>Children: None</p>

Examples

Example Request

This example retrieves the console output for the i-10a64379 Linux and UNIX instance.

```
<GetConsoleOutput xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
    <instanceId>i-28a64341</instanceId>
</GetConsoleOutput>
```

Example Response

```
<GetConsoleOutputResponse xmlns="http://ec2.amazonaws.com">
    <instanceId>i-28a64341</instanceId>
    <timestamp>2007-01-03 15:00:00</timestamp>
    <output>TGludXggdmVyc2lvbiAyLjYuMTYteGVuVSAoYnVpbGR1YyB2ZXJzaW9uIDQuMC4xIDIwMDUwNzI3IChSZWQgSGF0IDQuMC4xLTdCAyNiAwODo0MToyNiBTQVNUIDIwMDYKQklPUy1wcm92aWRlZCBwa1ZW46IDAwMDAwMDAwMDAwMDAgLSAwMDAwMDAwMDZhNDAwMDAwICR0hNRU0gYXZhaWxhYmxllLgo3MjdNQiBMT1dNRU0gYXZhaWxhYmxllLcYmxlKSBwcm90ZWN0aW9u0iBhY3RpdmUKSVJRIGxvY2t1cCBkZXRL1Y3bHQgMSB6b25lbGlzdHMKs2VybmrVsIGNvbW1hbmqgbGluZTogcm9vdEbmFibGluZyBmYXN0IEZQVSbzYXZlIGFuZCByZXN0b3JlLi4uIGRvbnd
</GetConsoleOutputResponse>
```

Related Operations

- [RunInstances](#)

GetPasswordData

Description

Retrieves the encrypted administrator password for the instances running Windows.



Note

The Windows password is only generated the first time an AMI is launched. It is not generated for rebundled AMIs or after the password is changed on an instance.

The password is encrypted using the key pair that you provided.

Request Parameters

Name	Description	Required
GetPasswordDataType	GetPasswordDataType element. Type:	

[GetPasswordDataType](#)

Ancestor: None

Children: instanceId

instanceId

The ID of the instance for which to get the password.

Type: xsd:string

Default: None

Ancestor: GetPasswordDataType

Children: None

Yes

Response Elements

Name	Description
GetPasswordDataResponseType	<p>GetPasswordDataResponseType element.</p> <p>Type: GetPasswordDataResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, instanceId, timestamp, and passwordData</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: GetPasswordDataResponseType</p> <p>Children: None</p>
instanceId	<p>The ID of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: GetPasswordDataResponseType</p> <p>Children: None</p>
timestamp	<p>The time the data was last updated.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: GetPasswordDataResponseType</p> <p>Children: None</p>
passwordData	<p>The password of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: GetPasswordDataResponseType</p> <p>Children: None</p>

Examples

Example Request

This example returns the encrypted version of the administrator password for the i-2574e22a instance.

```
<GetPasswordData xmlns="http://ec2.amazonaws.com/doc/2013-06-01">
  <instanceId>i-2574e22a</instanceId>
</GetPasswordData>
```

Example Response

```
<GetPasswordDataResponse xmlns="http://ec2.amazonaws.com/doc/2013-06-01">
  <instanceId>i-2574e22a</instanceId>
  <timestamp>2009-10-24 15:00:00</timestamp>
  <passwordData>TGludXggdmVyc2lvbiAyLjYuMTYteGVuVSAoYr...
```

Related Operations

- [RunInstances](#)

ModifyImageAttribute

Description

Modifies an attribute of an AMI.

Request Parameters

Name	Description	Required
ModifyImageAttributeType	ModifyImageAttributeType element. Type:	

[ModifyImageAttributeType](#)

Ancestor: None

Children: `imageId`, `launchPermission`, and `productCodes`

`imageId`

The AMI ID.

Type: xsd:string

Default: None

Ancestor: `ModifyImageAttributeType`

Children: None

Yes

`launchPermission`

Launch permission set.

Type: [LaunchPermissionOperationType](#)

Ancestor: ModifyImageAttributeType

Children: add, remove

add

Adds permission.

Type: [LaunchPermissionListType](#)

Ancestor: launchPermission

Children: item

item

Information for launch permissions.

Type: [LaunchPermissionItemType](#)

Ancestor: add

Children: userId, group

userId

AWS Access Key ID.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

group

Name of the group. Currently supports "all."

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

remove

Remove permission.

Type: [LaunchPermissionListType](#)

Ancestor: launchPermission

Children: item

item

Information for launch permissions.

Type: [LaunchPermissionItemType](#)

Ancestor: remove

Children: userId, group

userId

AWS Access Key ID.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

group

Name of the group. Currently supports "all."

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

productCodes

Product code set.

Type: [ProductCodeListType](#)

Ancestor: ModifyImageAttributeType

Children: item

item

Information for one product code.

Type: [ProductCodeItemType](#)

Ancestor: productCodes

Children: productCode

productCode

Product code.

Type: xsd:string

Default: None

Ancestor: item

Children: None

No

Response Elements

Name	Description
ModifyImageAttributeResponseType	<p>ModifyImageAttributeResponseType element.</p> <p>Type: ModifyImageAttributeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: ModifyImageAttributeResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: ModifyImageAttributeResponseType</p> <p>Children: None</p>

Examples

Example Request

This example makes this a public AMI and grants specific permissions to a user.

```
<ModifyImageAttribute xmlns="http://ec2.amazonaws.com/>
  <imageId>ami-61a54008</imageId>
  <launchPermission>
    <add>
      <item>
        <group>all</group>
      </item>
      <item>
        <userId>495219933132</userId>
      </item>
    </add>
    <launchPermission>
  </ModifyImageAttribute>
```

Example Response

```
<ModifyImageAttributeResponse xmlns="http://ec2.amazon.com/>
  <return>true</return>
</ModifyImageAttributeResponse>
```

Example Request

The following example adds the 774F4FF8 product code to the ami-2bb65342 AMI:

```
<ModifyImageAttribute xmlns="http://ec2.amazonaws.com/
  <imageId>ami-61a54008</imageId>
  <productCodes>
    <item>
      <productCode>774F4FF8</productCode>
    </item>
  </productCodes>
</ModifyImageAttribute>
```

Example Response

```
<ModifyImageAttributeResponse xmlns="http://ec2.amazonor
  <return>true</return>
</ModifyImageAttributeResponse>
```

Related Operations

- [ResetImageAttribute](#)
- [DescribeImageAttribute](#)

ModifySnapshotAttribute

Description

Adds or remove permission settings for the specified snapshot.

Request Parameters

Name	Description	Required
ModifySnapshotAttributeType	ModifySnapshotAttributeType element. Type:	

ModifySnapshotAttributeType

Ancestor: None

Children: snapshotId, createVolumePermission

snapshotId

The ID of the snapshot.

Type: xsd:string

Default: None

Ancestor: ModifySnapshotAttributeType

Children: None

Yes

createVolumePermission

Create volume permission element.

Type: [???](#)

Ancestor: ModifySnapshotAttributeType

Children:

CreateVolumePermissionOperationType

Response Elements

Name	Description
ModifySnapshotAttributeResponseType	<p>ModifySnapshotAttributeResponseType element.</p> <p>Type: ModifySnapshotAttributeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: ModifySnapshotAttributeResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: ModifySnapshotAttributeResponseType</p> <p>Children: None</p>

Examples

Example Request

This example makes the snap-78a54011 snapshot public.

```
<ModifySnapshotAttribute xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">\n    <snapshotId>snap-78a54011</snapshotId>\n    <createVolumePermission>\n        <add>\n            <item>\n                <group>all</group>\n            </item>\n        </add>\n    </createVolumePermission>\n</ModifySnapshotAttribute>
```

Example Response

```
<ModifySnapshotAttributeResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">\n    <return>true</return>\n</ModifySnapshotAttributeResponse>
```

Related Operations

- [DescribeSnapshotAttribute](#)
- [DescribeSnapshots](#)
- [ResetSnapshotAttribute](#)
- [CreateSnapshot](#)

MonitorInstances

Description

Enables monitoring for a running instance. For more information, refer to the *Amazon CloudWatch Developer Guide*.

Request Parameters

Name	Description	Required
MonitorInstancesType	MonitorInstancesType element. Type:	

MonitorInstancesType

Ancestor: None

Children: instancesSet

instancesSet

Set of instances.

Type: [MonitorInstancesSetType](#)

Ancestor: MonitorInstancesType

Children: item

item

Instance set.

Type: [MonitorInstancesSetItemType](#)

Ancestor: instancesSet

Children: instanceId

instanceId

Instance ID.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

Response Elements

Name	Description
MonitorInstancesResponseType	<p>MonitorInstancesResponseType element.</p> <p>Type: MonitorInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, instancesSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: MonitorInstancesResponseType</p> <p>Children: None</p>
instancesSet	<p>Monitor instance response set.</p> <p>Type: MonitorInstancesResponseSetType</p> <p>Ancestor: MonitorInstancesResponseType</p> <p>Children: item</p>
item	<p>Instance Item.</p> <p>Type: MonitorInstancesResponseSetItemType</p> <p>Ancestor: instancesSet</p> <p>Children: instanceId, monitoring</p>
instanceId	<p>Instance ID.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
monitoring	<p>Monitoring information.</p> <p>Type: InstanceMonitoringStateType</p> <p>Ancestor: item</p>

	Children: state
state	<p>State of monitoring for the instance.</p> <p>Type: xsd:string</p> <p>Valid Values: monitoring-enabled (enabled) monitoring-pending (pending) monitoring-disabled (disabled)</p> <p>Ancestor: monitoring</p> <p>Children: None</p>

Examples

Example Request

This example enables monitoring for i-43a4412a and i-23a3397d.

```
<MonitorInstances xmlns="http://ec2.amazonaws.com/doc/2012-08-15">
  <instancesSet>
    <instanceId>i-43a4412a</instanceId>
    <instanceId>i-23a3397d</instanceId>
  </instancesSet>
</MonitorInstances>
```

Example Response

```
<MonitorInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15">
  <instancesSet>
    <item>
      <instanceId>i-43a4412a</instanceId>
      <monitoring>
        <state>pending</state>
      </monitoring>
    </item>
    <item>
      <instanceId>i-23a3397d</instanceId>
      <monitoring>
        <state>pending</state>
      </monitoring>
    </item>
  </instancesSet>
</MonitorInstancesResponse>
```

</MonitorInstancesResponse>

Related Operations

- [UnmonitorInstances](#)
- [RunInstances](#)

PurchaseReservedInstance

Description

Purchases a Reserved Instance for use with your account. With Amazon EC2 Reserved Instances, you purchase the right to launch Amazon EC2 instances for a period of time (without getting insufficient capacity errors) and pay a lower usage rate for the actual time used. For more information about Reserved Instances, go to the

[Amazon Elastic Compute Cloud Developer Guide.](#)

Request Parameters

Name	Description	Required
PurchaseReservedInstancesOfferingType	<p>PurchaseReservedInstancesOfferingType element.</p> <p>Type: PurchaseReservedInstancesOfferingType</p> <p>Ancestor: None</p> <p>Children: reservedInstancesOfferingId, instanceCount</p>	
reservedInstancesOfferingId	<p>The offering ID of the Reserved Instance to purchase.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: PurchaseReservedInstancesOfferingType</p> <p>Children: None</p>	Yes
instanceCount	<p>The number of Reserved Instances to purchase.</p> <p>Type: xsd:int</p> <p>Default: 1</p> <p>Ancestor: PurchaseReservedInstancesOfferingType</p> <p>Children: None</p>	No

Response Elements

Name	Description
PurchaseReservedInstancesOfferingResponseType	<p>PurchaseReservedInstancesOfferingResponseType element.</p> <p>Type: PurchaseReservedInstancesOfferingResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservedInstancesId</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: PurchaseReservedInstancesOfferingResponseType</p> <p>Children: None</p>
reservedInstancesId	<p>The IDs of the purchased Reserved Instances.</p> <p>Type: xsd:string</p> <p>Ancestor: PurchaseReservedInstancesOfferingResponseType</p> <p>Children: None</p>

Examples

Example Request

This example purchases Reserved Instances.

```
<PurchaseReservedInstancesOffering xmlns="http://ec2.amazonaws.com/doc/2015-04-15/">\n    <reservedInstancesOfferingId>4b2293b4-5813-4cc8-9ce3-0e3333333333</reservedInstancesOfferingId>\n    <instanceCount>19</instanceCount>\n</PurchaseReservedInstancesOffering>
```

Example Response

Related Operations

- [DescribeReservedInstancesOfferings](#)
- [DescribeReservedInstances](#)

RebootInstances

Description

Requests a reboot of one or more instances. This operation is asynchronous; it only queues a request to reboot the specified instance(s). The operation will succeed if the instances are valid and belong to you. Requests to reboot terminated instances are ignored.



Note

If a Linux/UNIX instance does not cleanly shut down within four minutes, Amazon EC2 will perform a hard reboot.

Request Parameters

Name	Description	Required
RebootInstancesType	RebootInstancesType element. Type:	

RebootInstancesType

Ancestor: None

Children: instancesSet

instancesSet

Launch permission set.

Type: [RebootInstancesInfoType](#)

Ancestor: RebootInstancesType

Children: item

item

Information for an instance.

Type: [RebootInstancesItemType](#)

Ancestor: instancesSet

Children: `instanceId`

`instanceId`

One or more instance IDs.

Type: `xsd:string`

Default: None

Ancestor: `item`

Children: None

Yes

Response Elements

Name	Description
RebootInstancesResponseType	<p>RebootInstancesResponseType element.</p> <p>Type: RebootInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: RebootInstancesResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: RebootInstancesResponseType</p> <p>Children: None</p>

Examples

Example Request

This example reboots an instance.

```
<RebootInstances xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <instancesSet>
    <item>
      <instanceId>i-28a64341</instanceId>
    </item>
  </instancesSet>
</RebootInstances>
```

Example Response

```
<RebootInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2013-01-01">
  <return>true</return>
</RebootInstancesResponse>
```

Related Operations

- [RunInstances](#)

RegisterImage

Description

Registers an AMI with Amazon EC2. Images must be registered before they can be launched. To launch instances, use the `RunInstances` operation.

Each AMI is associated with an unique ID which is provided by the Amazon EC2 service through the `RegisterImage` operation. During registration, Amazon EC2 retrieves the specified image manifest from Amazon S3 and verifies that the image is owned by the user registering the image.

The image manifest is retrieved once and stored within the Amazon EC2. Any modifications to an image in Amazon S3 invalidates this registration. If you make changes to an image, deregister the previous image and register the new image. To deregister an image, use the `DeregisterImage` operation.

Request Parameters

Name	Description	Required
RegisterImageType	RegisterImageType element. Type:	

RegisterImageType

Ancestor: None

Children: `imageLocation`

`imageLocation`

Full path to your AMI manifest in Amazon S3 storage.

Type: `xsd:string`

Default: None

Ancestor: `RegisterImageType`

Children: None

Yes

Response Elements

Name	Description
RegisterImageResponseType	<p>RegisterImageResponseType element.</p> <p>Type: RegisterImageResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, imageId</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: RegisterImageResponseType</p> <p>Children: None</p>
imageId	<p>Unique ID of the newly registered machine image.</p> <p>Type: xsd:string</p> <p>Ancestor: RegisterImageResponseType</p> <p>Children: None</p>

Examples

Example Request

This example registers the AMI specified in the `image.manifest.xml` manifest file.

```
<RegisterImage xmlns="http://ec2.amazonaws.com/doc/2009-09-01">
    <imageLocation>/mybucket/myimage.manifest.xml</imageLocation>
</RegisterImage>
```

Example Response

```
<RegisterImageResponse xmlns="http://ec2.amazonaws.com/doc/2009-09-01">
    <imageId>ami-61a54008</imageId>
</RegisterImageResponse>
```

Related Operations

- [DescribeImages](#)
- [DeregisterImage](#)

ReleaseAddress

Description

Releases an elastic IP address associated with your account.

If you run this operation on an elastic IP address that is already released, the address might be assigned to another account which will cause Amazon EC2 to return an error.



Note

Releasing an IP address automatically disassociates it from any instance with which it is associated. To disassociate an IP address without releasing it, use the `DisassociateAddress` operation.



Important

After releasing an elastic IP address, it is released to the IP address pool and might no longer be available to your account. Make sure to update your DNS records and any servers or devices that communicate with the address.

Request Parameters

Name	Description	Required
ReleaseAddressType	ReleaseAddressType element. Type:	

[ReleaseAddressType](#)

Ancestor: None

Children: publicIp

publicIp

The IP address that you are releasing from your account.

Type: xsd:string

Default: None

Ancestor: ReleaseAddressType

Children: None

Yes

Response Elements

Name	Description
ReleaseAddressResponseType	<p>ReleaseAddressResponseType element.</p> <p>Type: ReleaseAddressResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: ReleaseAddressResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: ReleaseAddressResponseType</p> <p>Children: None</p>

Examples

Example Request

This example releases an elastic IP address associated with the account.

```
<ReleaseAddress xmlns="http://ec2.amazonaws.com/doc/2008-08-01">
  <publicIp>67.202.55.255</publicIp>
</ReleaseAddress>
```

Example Response

```
<ReleaseAddressResponse xmlns="http://ec2.amazonaws.com/doc/2008-08-01">
  <return>true</return>
</ReleaseAddressResponse>
```

Related Operations

- [AllocateAddress](#)
- [DescribeAddresses](#)
- [AssociateAddress](#)
- [DisassociateAddress](#)

ResetImageAttribute

Description

Resets an attribute of an AMI to its default value.



Note

The productCodes attribute cannot be reset.

Request Parameters

Name	Description	Required
ResetImageAttributeType	ResetImageAttributeType element. Type:	

[ResetImageAttributeType](#)

Ancestor: None

Children: `imageId`, `ResetImageAttributesGroup`

`imageId`

ID of the AMI on which the attribute will be reset.

Type: `xsd:string`

Default: None

Ancestor: `ResetImageAttributeType`

Children: None

Yes

`ResetImageAttributesGroup`

The reset image attribute group.

Type: [ResetImageAttributesGroup](#)

Ancestor: ResetImageAttributeType

Children: launchPermission

launchPermission

Resets the launch permission attribute.

Type: [EmptyElementType](#)

Ancestor: ResetImageAttributesGroup

Children: none

none

These element contains no options.

Type: xsd:string

Default: None

Ancestor: launchPermission

Children: None

No

Response Elements

Name	Description
ResetImageAttributeResponseType	<p>ResetImageAttributeResponseType element.</p> <p>Type: ResetImageAttributeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: ResetImageAttributeResponseType</p> <p>Children: None</p>
return	<p>Indicates whether the attribute successfully reset.</p> <p>Type: xsd:boolean</p> <p>Ancestor: ResetImageAttributeResponseType</p> <p>Children: None</p>

Examples

Example Request

This example resets the launchPermission attribute.

```
<ResetImageAttribute xmlns="http://ec2.amazonaws.com/c  
    <imageId>ami-6ba54002</imageId>  
    <launchPermission/>  
</ResetImageAttribute>
```

Example Response

```
<ResetImageAttributeResponse xmlns="http://ec2.amazonaws.com/c  
    <return>true</return>  
</ResetImageAttributeResponse>
```

Related Operations

- [ModifyImageAttribute](#)
- [DescribeImageAttribute](#)

ResetSnapshotAttribute

Description

Resets permission settings for the specified snapshot.

Request Parameters

Name	Description	Required
ResetSnapshotAttributeType	ResetSnapshotAttributeType element. Type:	

ResetSnapshotAttributeType

Ancestor: None

Children: snapshotId,
ResetSnapshotAttributesGroup

snapshotId

The ID of the snapshot.

Type: xsd:string

Default: None

Ancestor: ResetSnapshotAttributeType

Children: None

No

ResetSnapshotAttributesGroup

Snapshot group.

Type: [ResetSnapshotAttributesGroup](#)

Ancestor: ResetSnapshotAttributeType

Children: createVolumePermission

createVolumePermission

Create volume permission type.

Type: [EmptyElementType](#)

Ancestor: ResetSnapshotAttributesGroup

Children: none

none

These element contains no options.

Type: xsd:string

Default: None

Ancestor: createVolumePermission

Children: None

No

Response Elements

Name	Description
ResetSnapshotAttributeResponseType	<p>ResetSnapshotAttributeResponseType element.</p> <p>Type: ResetSnapshotAttributeResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: ResetSnapshotAttributeResponseType</p> <p>Children: None</p>
return	<p>Specifies whether the snapshot permissions were reset.</p> <p>Type: xsd:boolean</p> <p>Ancestor: ResetSnapshotAttributeResponseType</p> <p>Children: None</p>

Examples

Example Request

This example resets the permissions for snap-78a54011, making it a private snapshot that can only be used by the account that created it.

```
<ResetSnapshotAttribute xmlns="http://ec2.amazonaws.co
    <snapshotId>snap-78a54011</snapshotId>
    <createVolumePermission\>
</ResetSnapshotAttribute>
```

Example Response

```
<ResetSnapshotAttributeResponse xmlns="http://ec2.amaz
    <return>true</return>
</ResetSnapshotAttributeResponse>
```

Related Operations

- [ModifySnapshotAttribute](#)
- [DescribeSnapshotAttribute](#)
- [DescribeSnapshots](#)
- [CreateSnapshot](#)

RevokeSecurityGroupIngr

Description

Revokes permissions from a security group. The permissions used to revoke must be specified using the same values used to grant the permissions.

Permissions are specified by IP protocol (TCP, UDP, or ICMP), the source of the request (by IP range or an Amazon EC2 user-group pair), the source and destination port ranges (for TCP and UDP), and the ICMP codes and types (for ICMP).

Permission changes are quickly propagated to instances within the security group. However, depending on the number of instances in the group, a small delay is might occur.

Request Parameters

Name	Description	Required
RevokeSecurityGroupIngressType	RevokeSecurityGroupIngressType element. Type:	

RevokeSecurityGroupIngressType

Ancestor: None

Children: userId, groupName, and ipPermissions

userId

AWS Access Key ID.

Type: xsd:string

Default: None

Ancestor: RevokeSecurityGroupIngressType

Children: None

Yes

groupName

Name of the group to modify.

Type: xsd:string

Default: None

Ancestor: RevokeSecurityGroupIngressType

Children: None

Yes

ipPermissions

Set of permissions to add to the group.

Type: [IpPermissionSetType](#)

Ancestor: RevokeSecurityGroupIngressType

Children: item

Yes

item

Set of IP permissions.

Type: [IpPermissionType](#)

Ancestor: ipPermissions

Children: ipProtocol, fromPort, toPort, groups, and ipRanges

Yes

ipProtocol

IP protocol.

Type: xsd:string

Valid Values: tcp | udp | icmp

Default: None

Ancestor: item

Children: None

Yes

fromPort

Start of port range for the TCP and UDP protocols, or an ICMP type number. An ICMP type number of -1 indicates a wildcard (i.e., any ICMP type number).

Type: xsd:int

Default: None

Ancestor: item

Children: None

Yes

toPort

End of port range for the TCP and UDP protocols, or an ICMP code. An ICMP code of -1 indicates a wildcard (i.e., any ICMP code).

Type: xsd:int

Default: None

Ancestor: item

Children: None

Yes

groups

List of security group and user ID pairs.

Type: [UserIdGroupPairSetType](#)

Ancestor: item

Children: item

Yes

item

Information for one security group.

Type: [UserIdGroupPairType](#)

Ancestor: groups

Children: userId, groupName

Yes

userId

AWS User ID of an account. Cannot be used when specifying a CIDR IP address.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

groupName

Name of the security group. Cannot be used when specifying a CIDR IP address.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

ipRanges

IP ranges.

Type: [IpRangeSetType](#)

Ancestor: item

Children: item

Yes

item

Information for one IP range.

Type: [IpRangeItemType](#)

Ancestor: ipRanges

Children: cidrIp

Yes

cidrIp

CIDR range.

Type: xsd:string

Default: None

Constraints: Valid CIDR IP address range.

Ancestor: item

Children: None

Yes

Response Elements

Name	Description
RevokeSecurityGroupIngressResponseType	<p>RevokeSecurityGroupIngressResponseType element.</p> <p>Type: RevokeSecurityGroupIngressResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, return</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: RevokeSecurityGroupIngressResponseType</p> <p>Children: None</p>
return	<p>Returns</p> <p>Type: xsd:boolean</p> <p>Ancestor: RevokeSecurityGroupIngressResponseType</p> <p>Children: None</p>

Examples

Example Request

This example revokes TCP port 80 access from the 205.192.0.0/16 address range for the `websrv` security group.

```
<RevokeSecurityGroupIngress xmlns="http://ec2.amazonaws.com/doc/2013-10-15/">  <userId/>  <groupName>websrv</groupName>  <ipPermissions>    <item>      <ipProtocol>tcp</ipProtocol>      <fromPort>80</fromPort>      <toPort>80</toPort>      <groups/>      <ipRanges>        <item>          <cidrIp>205.192.0.0/16</cidrIp>        </item>      </ipRanges>    </item>  </ipPermissions></RevokeSecurityGroupIngress>
```

Example Response

```
<RevokeSecurityGroupIngressResponse xmlns="http://ec2.amazonaws.com/doc/2013-10-15/">  <return>true</return></RevokeSecurityGroupIngressResponse>
```


Related Operations

- [CreateSecurityGroup](#)
- [DescribeSecurityGroups](#)
- [AuthorizeSecurityGroupIngress](#)
- [DeleteSecurityGroup](#)

RunInstances

Description

Launches a specified number of instances of an AMI for which you have permissions.

If Amazon EC2 cannot launch the minimum number AMIs you request, no instances will be launched. If there is insufficient capacity to launch the maximum number of AMIs you request, Amazon EC2 launches the minimum number specified for each AMI and allocate the remaining available instances using round robin.

In the following example, Libby generates a request to launch two images (database and web_server):

1. Libby runs the `RunInstances` operation to launch database instances (min. 10, max. 15) and `web_server` instances (min. 30, max. 40).

Because there are currently 30 instances available and Libby needs a minimum of 40, no instances are launched.

2. Libby adjusts the number of instances she needs and runs the `RunInstances` operation to launch database instances (min. 5, max. 10) and `web_server` instances (min. 20, max. 40).

Amazon EC2 launches the minimum number of instances for each AMI (5 database, 20 web_server).

The remaining 5 instances are allocated using round robin.

3. Libby adjusts the number of instances she needs and runs the RunInstances operation again to launch database instances (min. 5, max. 10) and web_server instances (min. 20, max. 40).



Note

Every instance is launched in a security group (created using the CreateSecurityGroup operation).

You can provide an optional key pair ID for each image in the launch request (created using the CreateKeyPair operation). All instances that are created from images that use this key pair will have access to the associated public key at boot. You can use this key to provide secure access to an instance of an image on a per-instance basis. Amazon EC2 public images use this feature to provide secure access without passwords.



Important

Launching public images without a key pair ID will leave them inaccessible.

The public key material is made available to the instance at boot time by placing it in the `openssh_id.pub` file on a logical device that is exposed to the instance as `/dev/sda2` (the instance store). The format of this file is suitable for use as an entry within `~/.ssh/authorized_keys` (the OpenSSH format). This can be done at boot (e.g., as part of `rc.local`) allowing for secure access without passwords.

Optional user data can be provided in the launch request. All instances that collectively comprise the launch request have access to this data. For more information, go [here](#).

[Amazon Elastic Compute Cloud Developer Guide](#)



Note

If any of the AMIs have a product code attached for which the user has not subscribed, the `RunInstances` call will fail.



Important

We strongly recommend using the 2.6.18 Xen stock kernel with High-CPU and High-Memory instances. Although the default Amazon EC2 kernels will work, the new kernels provide greater stability and performance for these instance types. For more information about kernels, go the [Amazon Elastic Compute Cloud Developer Guide](#).

Request Parameters

Name	Description	Required
RunInstancesType	<p>RunInstancesType element.</p> <p>Type: RunInstancesType</p> <p>Ancestor: None</p> <p>Children: <code>imageId</code>, <code>minCount</code>, <code>maxCount</code>, <code>keyName</code>, <code>groupSet</code>, <code>additionalInfo</code>, <code>userData</code>, <code>addressingType</code>, <code>instanceType</code>, <code>placement</code>, <code>kernelId</code>, <code>ramdiskId</code>, <code>blockDeviceMapping</code>, <code>monitoring</code>, and <code>subnetId</code></p>	
imageId	<p>Unique ID of a machine image, returned by a call to</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: RunInstancesType</p> <p>Children: None</p>	Yes
minCount	<p>Minimum number of instances to launch. If the value is more than Amazon EC2 can launch, no instances are launched at all.</p> <p>Type: xsd:int</p> <p>Default: None</p> <p>Constraints: Between 1 and the maximum number allowed for your account (default: 20).</p> <p>Ancestor: RunInstancesType</p> <p>Children: None</p>	Yes
maxCount	<p>Maximum number of instances to launch. If the value is more than Amazon EC2 can launch, the largest possible number above minCount will be launched instead.</p> <p>Type: xsd:int</p> <p>Default: None</p> <p>Constraints: Between 1 and the maximum number allowed for your account (default: 20).</p> <p>Ancestor: RunInstancesType</p>	Yes

	Children: None	
keyName	<p>The name of the key pair.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: RunInstancesType</p> <p>Children: None</p>	No
groupSet	<p>Group set.</p> <p>Type: GroupSetType</p> <p>Ancestor: RunInstancesType</p> <p>Children: item</p>	
item	<p>Group set item.</p> <p>Type: GroupItemType</p> <p>Ancestor: groupSet</p> <p>Children: groupId</p>	
groupId	<p>Name of the security group.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: item</p> <p>Children: None</p>	No
additionalInfo	<p>Specifies additional information to make available to the instance(s).</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: RunInstancesType</p> <p>Children: None</p>	No
userData	<p>MIME, Base64-encoded user data.</p> <p>Type: UserDataType</p> <p>Ancestor: RunInstancesType</p>	

	Children: data	
data	<p>MIME, Base64-encoded user data.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: userData</p> <p>Children: None</p>	No
addressingType	<p>Deprecated.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: RunInstancesType</p> <p>Children: None</p>	No
instanceType	<p>Specifies the instance type.</p> <p>Type: xsd:string</p> <p>Valid Values: m1.small m1.large m1.xlarge c1.medium c1.xlarge m2.2xlarge m2.4xlarge</p> <p>Default: m1.small</p> <p>Ancestor: RunInstancesType</p> <p>Children: None</p>	No
placement	<p>Placement item.</p> <p>Type: PlacementRequestType</p> <p>Ancestor: RunInstancesType</p> <p>Children: availabilityZone</p>	No
availabilityZone	<p>Specifies the placement constraints (Availability Zones) for launching the instances.</p> <p>Type: xsd:string</p> <p>Default: Amazon EC2 selects an Availability Zone.</p> <p>Ancestor: placement</p> <p>Children: None</p>	No

<code>kernelId</code>	<p>The ID of the kernel with which to launch the instance.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: <code>RunInstancesType</code></p> <p>Children: None</p>	No
<code>ramdiskId</code>	<p>The ID of the RAM disk with which to launch the instance. Some kernels require additional drivers at launch. Check the kernel requirements for information on whether you need to specify a RAM disk. To find kernel requirements, go to the Resource Center and search for the kernel ID.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: <code>RunInstancesType</code></p> <p>Children: None</p>	No
<code>blockDeviceMapping</code>	<p>Specifies how block devices are exposed to the instance. Each mapping is made up of a <code>virtualName</code> and a <code>deviceName</code>.</p> <p>Type: BlockDeviceMappingType</p> <p>Ancestor: <code>RunInstancesType</code></p> <p>Children: <code>item</code></p>	No
<code>item</code>	<p>Information for one block device mapping.</p> <p>Type: BlockDeviceMappingItemType</p> <p>Ancestor: <code>blockDeviceMapping</code></p> <p>Children: <code>virtualName</code>, <code>deviceName</code></p>	
<code>virtualName</code>	<p>The virtual name.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>	No
<code>deviceName</code>	<p>The device name (e.g., <code>/dev/sdh</code>).</p> <p>Type: xsd:string</p>	No

	<p>Default: None</p> <p>Ancestor: item</p> <p>Children: None</p>	
monitoring	<p>Specifies whether to enable monitoring for the instance.</p> <p>Type: MonitoringInstanceType</p> <p>Ancestor: RunInstancesType</p> <p>Children: enabled</p>	No
enabled	<p>Enables monitoring for the instance.</p> <p>Type: xsd:boolean</p> <p>Default: Disabled</p> <p>Ancestor: monitoring</p> <p>Children: None</p>	No
subnetId	<p>Specifies the subnet ID within which to launch the instance(s) for Amazon Virtual Private Cloud.</p> <p>Type: xsd:string</p> <p>Default: None</p> <p>Ancestor: RunInstancesType</p> <p>Children: None</p>	No

Response Elements

Name	Description
RunInstancesResponseType	<p>RunInstancesResponseType element.</p> <p>Type: RunInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, reservationId, ownerId, groupSet, instancesSet, and requesterId</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: None</p>
reservationId	<p>Unique ID of the reservation.</p> <p>Type: xsd:string</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: None</p>
ownerId	<p>AWS Access Key ID of the user who owns the reservation.</p> <p>Type: xsd:string</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: None</p>
groupSet	<p>Group set.</p> <p>Type: GroupSetType</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: item</p>
item	<p>Group set item.</p> <p>Type: GroupItemType</p> <p>Ancestor: groupSet</p>

	Children: <code>groupId</code>
<code>groupId</code>	<p>Name of the security group.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>instancesSet</code>	<p>Instance set.</p> <p>Type: RunningInstancesSetType</p> <p>Ancestor: <code>RunInstancesResponseType</code></p> <p>Children: <code>item</code></p>
<code>item</code>	<p>Running instance set item.</p> <p>Type: RunningInstancesItemType</p> <p>Ancestor: <code>instancesSet</code></p> <p>Children: <code>instanceId</code>, <code>imageId</code>, <code>instanceState</code>, <code>privateDnsName</code>, <code>dnsName</code>, <code>reason</code>, <code>keyName</code>, <code>amiLaunchIndex</code>, <code>productCodes</code>, <code>instanceType</code>, <code>launchTime</code>, <code>placement</code>, <code>kernelId</code>, <code>ramdiskId</code>, <code>platform</code>, <code>monitoring</code>, <code>subnetId</code>, <code>vpcId</code>, <code>privateIpAddress</code>, and <code>ipAddress</code></p>
<code>instanceId</code>	<p>Unique ID of the instance launched.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>imageId</code>	<p>Image ID of the AMI used to launch the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>instanceState</code>	<p>The current state of the instance.</p> <p>Type: InstanceStateType</p> <p>Ancestor: <code>item</code></p> <p>Children: <code>code</code>, <code>name</code></p>

code	<p>A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:</p> <p>Type: xsd:int</p> <p>Ancestor: <code>instanceState</code></p> <p>Children: None</p>
name	<p>The current state of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>instanceState</code></p> <p>Children: None</p>
<code>privateDnsName</code>	<p>The private DNS name assigned to the instance. This DNS name can only be used inside the Amazon EC2 network. This element remains empty until the instance enters a running state.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>dnsName</code>	<p>The public DNS name assigned to the instance. This DNS name is contactable from outside the Amazon EC2 network. This element remains empty until the instance enters a running state.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
reason	<p>Reason for the most recent state transition. This might be an empty string.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>keyName</code>	<p>If this instance was launched with an associated key pair, this displays the key pair name.</p> <p>Type: xsd:string</p> <p>Ancestor: <code>item</code></p>

	Children: None
amiLaunchIndex	<p>The AMI launch index, which can be used to find this instance within the launch group. For more information, go to the Metadata section of the</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
productCodes	<p>Product codes attached to this instance.</p> <p>Type: ProductCodesSetType</p> <p>Ancestor: item</p> <p>Children: item</p>
item	<p>Information for one product code.</p> <p>Type: ProductCodesSetItemType</p> <p>Ancestor: productCodes</p> <p>Children: productCode</p>
productCode	<p>Product code.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
instanceType	<p>The instance type.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
launchTime	<p>The time the instance launched.</p> <p>Type: xsd:dateTime</p> <p>Ancestor: item</p> <p>Children: None</p>
placement	The location where the instance launched.

	<p>Type: PlacementResponseType</p> <p>Ancestor: <code>item</code></p> <p>Children: <code>availabilityZone</code></p>
<code>availabilityZone</code>	<p>Returns the Availability Zones of the instances.</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>placement</code></p> <p>Children: None</p>
<code>kernelID</code>	<p>Optional. Kernel associated with this instance.</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>ramdiskID</code>	<p>Optional. RAM disk associated with this instance.</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>platform</code>	<p>Platform of the instance (e.g., Windows).</p> <p>Type: <code>xsd:string</code></p> <p>Ancestor: <code>item</code></p> <p>Children: None</p>
<code>monitoring</code>	<p>Specifies whether monitoring is enabled for the instance.</p> <p>Type: InstanceMonitoringStateType</p> <p>Ancestor: <code>item</code></p> <p>Children: <code>state</code></p>
<code>state</code>	<p>State of monitoring for the instance.</p> <p>Type: <code>xsd:string</code></p> <p>Valid Values: <code>monitoring-enabled</code> (enabled) <code>monitoring-pending</code> (pending) <code>monitoring-disabled</code> (disabled)</p> <p>Ancestor: <code>monitoring</code></p>

	<p>Children: None</p>
subnetId	<p>Specifies the subnet ID in which the instance is running (Amazon Virtual Private Cloud).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
vpcId	<p>Specifies the VPC in which the instance is running (Amazon Virtual Private Cloud).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
privateIpAddress	<p>Specifies the private IP address that is assigned to the instance (Amazon VPC).</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
ipAddress	<p>Specifies the IP address of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
requesterId	<p>ID of the requester.</p> <p>Type: xsd:string</p> <p>Ancestor: RunInstancesResponseType</p> <p>Children: None</p>

Examples

Example Request

This example launches three instances of the ami-60a54009 AMI.

```
<RunInstances xmlns="http://ec2.amazonaws.com/doc/2009-09-04">
  <imageId>ami-60a54009</imageId>
  <minCount>1</minCount>
  <maxCount>3</maxCount>
  <keyName>example-key-name</keyName>
    <groupSet/>
  <placement>
    <availabilityZone>us-east-1b</availabilityZone>
  </placement>
  <kernelId>aki-ba3adfd3</kernelId>
  <ramdiskId>ari-badbad00</ramdiskId>
  <blockDeviceMapping>
    <item>
      <virtualName>ami</virtualName>
      <deviceName>sda1</deviceName>
    </item>
    <item>
      <virtualName>root</virtualName>
      <deviceName>/dev/sda1</deviceName>
    </item>
    <item>
      <virtualName>instancestore0</virtualName>
      <deviceName>sdb</deviceName>
    </item>
    <item>
      <virtualName>instance1</virtualName>
```

```
<deviceName>sdc</deviceName>
</item>
</blockDeviceMapping>
<userData version="1.0" encoding="base64"><data>"VC
<addressingType>public</addressingType>
<monitoring>enabled</monitoring></RunInstances>
```

Example Response

```
<RunInstancesResponse xmlns="http://ec2.amazonaws.com/
  <reservationId>r-47a5402e</reservationId>
  <ownerId>AIDADH4IGTRXXKCD</ownerId>
  <groupSet>
    <item>
      <groupId>default</groupId>
    </item>
  </groupSet>
  <instancesSet>
    <item>
      <instanceId>i-2ba64342</instanceId>
      <imageId>ami-60a54009</imageId>
      <instanceState>
        <code>0</code>
        <name>pending</name>
      </instanceState>
      <privateDnsName></privateDnsName>
      <dnsName></dnsName>
      <keyName>example-key-name</keyName>
      <amiLaunchIndex>0</amiLaunchIndex>
      <instanceType>m1.small</instanceType>
      <launchTime>2007-08-07T11:51:50.000Z</launchTime>
      <placement>
        <availabilityZone>us-east-1b</availabilityZone>
      </placement>
      <monitoring>
```

```
        <enabled>true</enabled>
    </monitoring>

</item>
<item>
    <instanceId>i-2bc64242</instanceId>
    <imageId>ami-60a54009</imageId>
    <instanceState>
        <code>0</code>
        <name>pending</name>
    </instanceState>
    <privateDnsName></privateDnsName>
    <dnsName></dnsName>
    <keyName>example-key-name</keyName>
    <amiLaunchIndex>1</amiLaunchIndex>
    <instanceType>m1.small</instanceType>
    <launchTime>2007-08-07T11:51:50.000Z</launchTime>
    <placement>
        <availabilityZone>us-east-1b</availabilityZone>
    </placement>
    <monitoring>
        <enabled>true</enabled>
    </monitoring>
</item>
<item>
    <instanceId>i-2be64332</instanceId>
    <imageId>ami-60a54009</imageId>
    <instanceState>
        <code>0</code>
        <name>pending</name>
    </instanceState>
    <privateDnsName></privateDnsName>
    <dnsName></dnsName>
    <keyName>example-key-name</keyName>
    <amiLaunchIndex>2</amiLaunchIndex>
    <instanceType>m1.small</instanceType>
    <launchTime>2007-08-07T11:51:50.000Z</launchTime>
    <placement>
        <availabilityZone>us-east-1c</availabilityZone>
    </placement>
    <monitoring>
        <enabled>true</enabled>
    </monitoring>
</item>
```

```
<placement>
    <availabilityZone>us-east-1b</availabilityZone>
</placement>
<monitoring>
    <enabled>true</enabled>
</monitoring>
</item>
</instancesSet>
</RunInstancesResponse>
```

Related Operations

- [DescribeInstances](#)
- [TerminateInstances](#)
- [AuthorizeSecurityGroupIngress](#)
- [RevokeSecurityGroupIngress](#)
- [DescribeSecurityGroups](#)
- [CreateSecurityGroup](#)
- [CreateKeyPair](#)

TerminateInstances

Description

Shuts down one or more instances. This operation is idempotent; if you terminate an instance more than once, each call will succeed.

Terminated instances will remain visible after termination (approximately one hour).

Request Parameters

Name	Description	Required
TerminateInstancesType	TerminateInstancesType element. Type:	

[TerminateInstancesType](#)

Ancestor: None

Children: instancesSet

instancesSet

Set of instances.

Type: [TerminateInstancesInfoType](#)

Ancestor: TerminateInstancesType

Children: item

Yes

item

Information for a instance.

Type: [TerminateInstancesItemType](#)

Ancestor: instancesSet

Children: instanceId

Yes

instanceId

Instance ID to terminate.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

Response Elements

Name	Description
TerminateInstancesResponseType	<p>TerminateInstancesResponseType element.</p> <p>Type: TerminateInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, instancesSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: TerminateInstancesResponseType</p> <p>Children: None</p>
instancesSet	<p>Instances set.</p> <p>Type: TerminateInstancesResponseInfoType</p> <p>Ancestor: TerminateInstancesResponseType</p> <p>Children: item</p>
item	<p>Response item.</p> <p>Type: TerminateInstancesResponseItemType</p> <p>Ancestor: instancesSet</p> <p>Children: instanceId, shutdownState, and previousState</p>
instanceId	<p>Instance ID.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
shutdownState	<p>Shutdown state.</p> <p>Type: InstanceStateType</p> <p>Ancestor: item</p>

	Children: code, name
code	<p>A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:</p> <p>Type: xsd:int</p> <p>Ancestor: shutdownState</p> <p>Children: None</p>
name	<p>The current state of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: shutdownState</p> <p>Children: None</p>
previousState	<p>Previous state.</p> <p>Type: InstanceStateType</p> <p>Ancestor: item</p> <p>Children: code, name</p>
code	<p>A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:</p> <p>Type: xsd:int</p> <p>Ancestor: previousState</p> <p>Children: None</p>
name	<p>The current state of the instance.</p> <p>Type: xsd:string</p> <p>Ancestor: previousState</p> <p>Children: None</p>

Examples

Example Request

This example terminates the i-3ea74257 instance.

```
<TerminateInstances xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <instancesSet>
    <item>
      <instanceId>i-3ea74257</instanceId>
    </item>
  </instancesSet>
</TerminateInstances>
```

Example Response

```
<TerminateInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15/">
  <instancesSet>
    <item>
      <instanceId>i-3ea74257</instanceId>
      <shutdownState>
        <code>32</code>
        <name>shutting-down</name>
      </shutdownState>
      <previousState>
        <code>16</code>
        <name>running</name>
      </previousState>
    </item>
  </instancesSet>
</TerminateInstancesResponse>
```

Related Operations

- [DescribeInstances](#)

UnmonitorInstances

Description

Disables monitoring for a running instance. For more information, refer to the *Amazon CloudWatch Developer Guide*.

Request Parameters

Name	Description	Required
MonitorInstancesType	MonitorInstancesType element. Type:	

MonitorInstancesType

Ancestor: None

Children: instancesSet

instancesSet

Set of instances.

Type: [MonitorInstancesSetType](#)

Ancestor: MonitorInstancesType

Children: item

item

Instance set.

Type: [MonitorInstancesSetItemType](#)

Ancestor: instancesSet

Children: instanceId

instanceId

Instance ID.

Type: xsd:string

Default: None

Ancestor: item

Children: None

Yes

Response Elements

Name	Description
MonitorInstancesResponseType	<p>MonitorInstancesResponseType element.</p> <p>Type: MonitorInstancesResponseType</p> <p>Ancestor: None</p> <p>Children: requestId, instancesSet</p>
requestId	<p>The ID of the request.</p> <p>Type: xsd:string</p> <p>Ancestor: MonitorInstancesResponseType</p> <p>Children: None</p>
instancesSet	<p>Monitor instance response set.</p> <p>Type: MonitorInstancesResponseSetType</p> <p>Ancestor: MonitorInstancesResponseType</p> <p>Children: item</p>
item	<p>Instance Item.</p> <p>Type: MonitorInstancesResponseSetItemType</p> <p>Ancestor: instancesSet</p> <p>Children: instanceId, monitoring</p>
instanceId	<p>Instance ID.</p> <p>Type: xsd:string</p> <p>Ancestor: item</p> <p>Children: None</p>
monitoring	<p>Monitoring information.</p> <p>Type: InstanceMonitoringStateType</p> <p>Ancestor: item</p>

	Children: state
state	<p>State of monitoring for the instance.</p> <p>Type: xsd:string</p> <p>Valid Values: monitoring-enabled (enabled) monitoring-pending (pending) monitoring-disabled (disabled)</p> <p>Ancestor: monitoring</p> <p>Children: None</p>

Examples

Example Request

This example disables monitoring for i-43a4412a and i-23a3397d.

```
<UnmonitorInstances xmlns="http://ec2.amazonaws.com/doc/2012-08-15">
  <instancesSet>
    <instanceId>i-43a4412a</instanceId>
    <instanceId>i-23a3397d</instanceId>
  </instancesSet>
</UnmonitorInstances>
```

Example Response

```
<UnmonitorInstancesResponse xmlns="http://ec2.amazonaws.com/doc/2012-08-15">
  <instancesSet>
    <item>
      <instanceId>i-43a4412a</instanceId>
      <monitoring>
        <state>pending</state>
      </monitoring>
    </item>
    <item>
      <instanceId>i-23a3397d</instanceId>
      <monitoring>
        <state>pending</state>
      </monitoring>
    </item>
  </instancesSet>
</UnmonitorInstancesResponse>
```

```
</UnmonitorInstancesResponse>
```

Related Operations

- [MonitorInstances](#)
- [RunInstances](#)

Data Types

Topics

- [AllocateAddressResponseType](#)
- [AssociateAddressResponseType](#)
- [AssociateAddressType](#)
- [AttachmentSetItemResponseType](#)
- [AttachmentSetResponseType](#)
- [AttachVolumeResponseType](#)
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- [AttributeValueType](#)
- [AuthorizeSecurityGroupIngressResponseType](#)
- [AuthorizeSecurityGroupIngressType](#)
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- [BundleInstanceType](#)
- [CancelBundleTaskResponseType](#)
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- [ConfirmProductInstanceResponseType](#)
- [ConfirmProductInstanceType](#)
- [CreateKeyPairResponseType](#)
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- [DescribeAvailabilityZonesSetType](#)
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- [UserDataType](#)
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AllocateAddressResponseT

The AllocateAddressResponseType data type.

Ancestors

None

Relevant Operations

- AllocateAddress

Contents

The following table describes the elements contained in AllocateAddressResponseType.

Name	Description
publicIP	IP address for use with your account. Type: xsd:string
requestId	The ID of the request. Type: xsd:string

AssociateAddressResponse

The AssociateAddressResponseType data type.

Ancestors

None

Relevant Operations

- AssociateAddress

Contents

The following table describes the elements contained in AssociateAddressResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if instance and IP address successfully associated. Otherwise, returns an error. Type: xsd:boolean

AssociateAddressType

The AssociateAddressType data type.

Ancestors

None

Relevant Operations

- AssociateAddress

Contents

The following table describes the elements contained in AssociateAddressType.

Name	Description
instanceId	The instance to associate with the IP address. Type: xsd:string
publicIP	IP address that you are assigning to the instance. Type: xsd:string

AttachmentSetItemTypeRespon

The AttachmentSetItemTypeResponseType data type.

Ancestors

- [AttachmentSetResponseType](#)

Relevant Operations

- Describe Volumes

Contents

The following table describes the elements contained in AttachmentSetItemResponseType.

Name	Description
attachTime	Time stamp when the association was created. Type: dateTime
device	Specifies how the device is exposed to the instance (e.g., /dev/sdh). Type: xsd:string
instanceId	The ID of the instance. Type: xsd:string
status	Attachment state. Type: xsd:string
volumeId	The ID of the volume. Type: xsd:string

AttachmentSetResponseType

The AttachmentSetResponseType data type.

Ancestors

- [DescribeVolumesSetItemResponseType](#)

Relevant Operations

- Describe Volumes

Contents

The following table describes the elements contained in AttachmentSetResponseType.

Name	Description
item	Information for a attachment set. Type: AttachmentSetItemType

AttachVolumeResponseType

The AttachVolumeResponseType data type.

Ancestors

None

Relevant Operations

- AttachVolume

Contents

The following table describes the elements contained in AttachVolumeResponseType.

Name	Description
attachTime	Time stamp when the attachment was initiated. Type: dateTime
device	The device as it is exposed to the instance. Type: xsd:string
instanceId	The ID of the instance. Type: xsd:string
requestId	The ID of the request. Type: xsd:string
status	Volume state (e.g., attaching, attached). Type: xsd:string
volumeId	The ID of the volume. Type: xsd:string

AttachVolumeType

The AttachVolumeType data type.

Ancestors

None

Relevant Operations

- AttachVolume

Contents

The following table describes the elements contained in `AttachVolumeType`.

Name	Description
<code>device</code>	Specifies how the device is exposed to the instance (e.g., <code>/dev/sdh</code>). Type: <code>xsd:string</code>
<code>instanceId</code>	The ID of the instance to which the volume attaches. The volume and instance must be within the same Availability Zone and the instance must be running. Type: <code>xsd:string</code>
<code>volumeId</code>	The ID of the Amazon EBS volume. The volume and instance must be within the same Availability Zone and the instance must be running. Type: <code>xsd:string</code>

AttributeValueType

The AttributeValueType data type.

Ancestors

None

Relevant Operations

-

Contents

The following table describes the elements contained in AttributeValueType.

Name	Description
value	ID of the item. Type: xsd:string

AuthorizeSecurityGroupIn

The AuthorizeSecurityGroupIngressResponseType data type.

Ancestors

None

Relevant Operations

- AuthorizeSecurityGroupIngress

Contents

The following table describes the elements contained in AuthorizeSecurityGroupIngressResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if request is successful. Otherwise, returns an error. Type: xsd:boolean

AuthorizeSecurityGroupIn

The AuthorizeSecurityGroupIngressType data type.

Ancestors

None

Relevant Operations

- AuthorizeSecurityGroupIngress

Contents

The following table describes the elements contained in AuthorizeSecurityGroupIngressType.

Name	Description
groupName	Name of the group to modify. The name must be valid and belong to the account Type: xsd:string
ipPermissions	Set of permissions. Type: IpPermissionSetType
userId	AWS Access Key ID. Type: xsd:string

AvailabilityZoneItemType

The AvailabilityZoneItemType data type.

Ancestors

- [AvailabilityZoneSetType](#)

Relevant Operations

- `DescribeAvailabilityZones`

Contents

The following table describes the elements contained in AvailabilityZoneItemType.

Name	Description
messageSet	Message set. Type: AvailabilityZoneMessageType
regionName	Name of the region. Type: xsd:string
zoneName	Name of the Availability Zone. Type: xsd:string
zoneState	State of the Availability Zone. Type: xsd:string

AvailabilityZoneMessageSet

The AvailabilityZoneMessageType data type.

Ancestors

- [AvailabilityZoneItemType](#)

Relevant Operations

- `DescribeAvailabilityZones`

Contents

The following table describes the elements contained in AvailabilityZoneMessageType.

Name	Description
item	Availability Zone message set. Type: AvailabilityZoneMessageType

AvailabilityZoneMessageType

The AvailabilityZoneMessageType data type.

Ancestors

- [AvailabilityZoneMessageType](#)

Relevant Operations

- `DescribeAvailabilityZones`

Contents

The following table describes the elements contained in AvailabilityZoneMessageType.

Name	Description
message	The Availability Zone message. Type: xsd:string

AvailabilityZoneSetType

The AvailabilityZoneSetType data type.

Ancestors

- [DescribeAvailabilityZonesResponseType](#)

Relevant Operations

- `DescribeAvailabilityZones`

Contents

The following table describes the elements contained in AvailabilityZoneSetType.

Name	Description
item	Information for one Availability Zone. Type: AvailabilityZoneItemType

BlockDeviceMappingItem

The BlockDeviceMappingItemType data type.

Ancestors

- [BlockDeviceMappingType](#)

Relevant Operations

- `DescribeImageAttribute`
- `RunInstances`

Contents

The following table describes the elements contained in BlockDeviceMappingItemType.

Name	Description
deviceName	The device name (e.g., /dev/sdh). Type: xsd:string
virtualName	The virtual name. Type: xsd:string

BlockDeviceMappingType

The BlockDeviceMappingType data type.

Ancestors

- [DescribeImageAttributeResponseType](#)
- [RunInstancesType](#)

Relevant Operations

- `DescribeImageAttribute`
- `RunInstances`

Contents

The following table describes the elements contained in BlockDeviceMappingType.

Name	Description
item	Information for one block device mapping. Type: BlockDeviceMappingItemType

BundleInstanceResponseType

The BundleInstanceResponseType data type.

Ancestors

None

Relevant Operations

- BundleInstance

Contents

The following table describes the elements contained in `BundleInstanceResponseType`.

Name	Description
<code>bundleInstanceTask</code>	Bundle task. Type: BundleInstanceTaskType
<code>requestId</code>	The ID of the request. Type: xsd:string

BundleInstanceS3Storage

The `BundleInstanceS3StorageType` data type.

Ancestors

- [BundleInstanceTaskStorageType](#)

Relevant Operations

- `BundleInstance`
- `DescribeBundleTasks`
- `CancelBundleTask`
- `BundleInstance`

Contents

The following table describes the elements contained in `BundleInstanceStateS3StorageType`.

Name	Description
<code>awsAccessKeyId</code>	The Access Key ID of the owner of the Amazon S3 bucket. Type: xsd:string
<code>bucket</code>	The bucket in which to store the AMI. You can specify a bucket that you already own or a new bucket that Amazon EC2 creates on your behalf. If you specify a bucket that belongs to someone else, Amazon EC2 returns an error. Type: xsd:string
<code>prefix</code>	Specifies the beginning of the file name of the AMI. Type: xsd:string
<code>uploadPolicy</code>	A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf. Type: xsd:string
<code>uploadPolicySignature</code>	The signature of the Base64 encoded JSON document. Type: xsd:string

BundleInstanceTaskError

The BundleInstanceTaskErrorType data type.

Ancestors

- [BundleInstanceTaskType](#)

Relevant Operations

- `BundleInstance`
- `DescribeBundleTasks`
- `CancelBundleTask`

Contents

The following table describes the elements contained in `BundleInstanceTaskErrorType`.

Name	Description
<code>code</code>	Error code. Type: xsd:string
<code>message</code>	Error message. Type: xsd:string

BundleInstanceTasksSetTy

The BundleInstanceTasksSetType data type.

Ancestors

- [DescribeBundleTasksResponseType](#)

Relevant Operations

- `DescribeBundleTasks`

Contents

The following table describes the elements contained in `BundleInstanceTasksSetType`.

Name	Description
<code>item</code>	Bundle task. Type: BundleInstanceTaskType

BundleInstanceTaskStorage

The BundleInstanceTaskStorageType data type.

Ancestors

- [BundleInstanceTaskType](#)
- [BundleInstanceType](#)

Relevant Operations

- `BundleInstance`
- `DescribeBundleTasks`
- `CancelBundleTask`
- `BundleInstance`

Contents

The following table describes the elements contained in `BundleInstanceTaskStorageType`.

Name	Description
s3	Amazon S3 storage location. Type: BundleInstanceS3StorageType

BundleInstanceTaskType

The BundleInstanceTaskType data type.

Ancestors

- [BundleInstanceResponseType](#)
- [BundleInstanceTasksSetType](#)
- [CancelBundleTaskResponseType](#)

Relevant Operations

- `BundleInstance`
- `DescribeBundleTasks`
- `CancelBundleTask`

Contents

The following table describes the elements contained in `BundleInstanceTaskType`.

Name	Description
<code>bundleId</code>	Identifier for this task. Type: xsd:string
<code>error</code>	If the task fails, a description of the error. Type: BundleInstanceTaskErrorType
<code>instanceId</code>	Instance associated with this bundle task. Type: xsd:string
<code>progress</code>	The level of task completion, in percent (e.g., 20%). Type: xsd:string
<code>startTime</code>	The time this task started. Type: dateTime
<code>state</code>	The state of the task. Type: xsd:string
<code>storage</code>	Amazon S3 storage locations. Type: BundleInstanceTaskStorageType
<code>updateTime</code>	The time of the most recent update for the task. Type: dateTime

BundleInstanceType

The BundleInstanceType data type.

Ancestors

None

Relevant Operations

- BundleInstance

Contents

The following table describes the elements contained in `BundleInstanceType`.

Name	Description
<code>instanceId</code>	The ID of the instance to bundle. Type: xsd:string
<code>storage</code>	Amazon S3 storage locations. Type: BundleInstanceTaskStorageType

CancelBundleTaskResponse

The CancelBundleTaskResponseType data type.

Ancestors

None

Relevant Operations

- CancelBundleTask

Contents

The following table describes the elements contained in CancelBundleTaskResponseType.

Name	Description
bundleInstanceTask	Bundle task to cancel. Type: BundleInstanceTaskType
requestId	The ID of the request. Type: xsd:string

CancelBundleTaskType

The CancelBundleTaskType data type.

Ancestors

None

Relevant Operations

- CancelBundleTask

Contents

The following table describes the elements contained in CancelBundleTaskType.

Name	Description
bundleId	The ID of the bundle task to cancel. Type: xsd:string

ConfirmProductInstanceR

The ConfirmProductInstanceResponseType data type.

Ancestors

None

Relevant Operations

- ConfirmProductInstance

Contents

The following table describes the elements contained in ConfirmProductInstanceResponseType.

Name	Description
ownerId	The instance owner's account ID. Only present if the product code is attached to the instance. Type: xsd:string
requestId	The ID of the request. Type: xsd:string
return	Returns true if the product code is attached to the instance. Otherwise, returns an error. Type: xsd:boolean

ConfirmProductInstanceT

The ConfirmProductInstanceType data type.

Ancestors

None

Relevant Operations

- ConfirmProductInstance

Contents

The following table describes the elements contained in ConfirmProductInstanceType.

Name	Description
instanceId	The instance to confirm. Type: xsd:string
productCode	The product code to confirm. Type: xsd:string

CreateKeyPairResponseType

The CreateKeyPairResponseType data type.

Ancestors

None

Relevant Operations

- CreateKeyPair

Contents

The following table describes the elements contained in CreateKeyPairResponseType.

Name	Description
keyFingerprint	A SHA-1 digest of the DER encoded private key. Type: xsd:string
keyMaterial	An unencrypted PEM encoded RSA private key. Type: xsd:string
keyName	The key pair name provided in the original request. Type: xsd:string
requestId	The ID of the request. Type: xsd:string

CreateKeyPairType

The CreateKeyPairType data type.

Ancestors

None

Relevant Operations

- CreateKeyPair

Contents

The following table describes the elements contained in CreateKeyPairType.

Name	Description
keyName	A unique name for the key pair. Type: xsd:string

CreateSecurityGroupResp

The CreateSecurityGroupResponseType data type.

Ancestors

None

Relevant Operations

- CreateSecurityGroup

Contents

The following table describes the elements contained in CreateSecurityGroupResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if creation succeeded. Otherwise, returns an error. Type: xsd:boolean

CreateSecurityGroupType

The CreateSecurityGroupType data type.

Ancestors

None

Relevant Operations

- CreateSecurityGroup

Contents

The following table describes the elements contained in CreateSecurityGroupType.

Name	Description
groupDescription	Description of the group. This is informational only. If the description contains spaces, you must enclose it in single quotes ('') or URL-encode it. Type: xsd:string
groupName	Name of the security group. Type: xsd:string

CreateSnapshotResponseTypeT

The CreateSnapshotResponseType data type.

Ancestors

None

Relevant Operations

- CreateSnapshot

Contents

The following table describes the elements contained in CreateSnapshotResponseType.

Name	Description
description	Description of the snapshot. Type: xsd:string
ownerId	The AWS account ID of the Amazon EBS snapshot owner. Type: xsd:string
progress	The progress of the snapshot, in percentage. Type: xsd:string
requestId	The ID of the request. Type: xsd:string
snapshotId	The ID of the snapshot. Type: xsd:string
startTime	Time stamp when the snapshot was initiated. Type: dateTime
status	Snapshot state (e.g., pending, completed, or error) Type: xsd:string
volumeId	The ID of the volume. Type: xsd:string
volumeSize	The size of the volume, in GiB. Type: xsd:string

CreateSnapshotType

The CreateSnapshotType data type.

Ancestors

None

Relevant Operations

- CreateSnapshot

Contents

The following table describes the elements contained in CreateSnapshotType.

Name	Description
description	Description of the Amazon EBS snapshot. Type: xsd:string
volumeId	The ID of the Amazon EBS volume of which to take a snapshot. Type: xsd:string

CreateVolumePermissionIt

The CreateVolumePermissionItemType data type.

Ancestors

- [CreateVolumePermissionListType](#)

Relevant Operations

-
- `DescribeSnapshotAttribute`

Contents

The following table describes the elements contained in CreateVolumePermissionItemType.

Name	Description
group	Group that is allowed to create volumes from the snapshot (currently supports "all"). Type: xsd:string
userId	User ID of a user that can create volumes from the snapshot. Type: xsd:string

CreateVolumePermissionL

The CreateVolumePermissionListType data type.

Ancestors

- [CreateVolumePermissionOperationType](#)
- [CreateVolumePermissionOperationType](#)
- [DescribeSnapshotAttributeResponseType](#)

Relevant Operations

-
- `DescribeSnapshotAttribute`

Contents

The following table describes the elements contained in CreateVolumePermissionListType.

Name	Description
item	Volume permission item. Type: CreateVolumePermissionItemType

CreateVolumePermissionC

The CreateVolumePermissionOperationType data type.

Ancestors

None

Relevant Operations

-

Contents

The following table describes the elements contained in CreateVolumePermissionOperationType.

Name	Description
add	Add permission. Type: CreateVolumePermissionListType
remove	Remove permission. Type: CreateVolumePermissionListType

CreateVolumeResponseType

The CreateVolumeResponseType data type.

Ancestors

None

Relevant Operations

- CreateVolume

Contents

The following table describes the elements contained in CreateVolumeResponseType.

Name	Description
availabilityZone	Availability Zone in which the volume was created. Type: xsd:string
createTime	Time stamp when volume creation was initiated. Type: dateTime
requestId	The ID of the request. Type: xsd:string
size	The size of the volume, in GiBs. Type: xsd:string
snapshotId	Snapshot from which the volume was created, if applicable. Type: xsd:string
status	Volume state (e.g., creating, available) Type: xsd:string
volumeId	The ID of the volume. Type: xsd:string

CreateVolumeType

The CreateVolumeType data type.

Ancestors

None

Relevant Operations

- CreateVolume

Contents

The following table describes the elements contained in CreateVolumeType.

Name	Description
availabilityZone	The Availability Zone in which to create the new volume. Type: xsd:string
size	The size of the volume, in GiBs. Required if you are not creating a volume from a snapshot. Type: xsd:string
snapshotId	The snapshot from which to create the new volume. Type: xsd:string

DeleteKeyValuePairResponseTy]

The DeleteKeyValuePairResponseType data type.

Ancestors

None

Relevant Operations

- DeleteKeyPair

Contents

The following table describes the elements contained in DeleteKeyPairResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if deletion succeeded. Otherwise, returns an error. Type: xsd:boolean

DeleteKeyValuePairType

The DeleteKeyValuePairType data type.

Ancestors

None

Relevant Operations

- DeleteKeyPair

Contents

The following table describes the elements contained in DeleteKeyPairType.

Name	Description
keyName	Name of the key pair to delete. Type: xsd:string

DeleteSecurityGroupResponse

The DeleteSecurityGroupResponseType data type.

Ancestors

None

Relevant Operations

- DeleteSecurityGroup

Contents

The following table describes the elements contained in DeleteSecurityGroupResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if deletion succeeded. Otherwise, returns an error. Type: xsd:boolean

DeleteSecurityGroupType

The DeleteSecurityGroupType data type.

Ancestors

None

Relevant Operations

- DeleteSecurityGroup

Contents

The following table describes the elements contained in DeleteSecurityGroupType.

Name	Description
groupName	Name of the security group to delete. Type: xsd:string

DeleteSnapshotResponseType

The DeleteSnapshotResponseType data type.

Ancestors

None

Relevant Operations

- DeleteSnapshot

Contents

The following table describes the elements contained in DeleteSnapshotResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if deletion succeeded. Otherwise, returns an error. Type: xsd:boolean

DeleteSnapshotType

The DeleteSnapshotType data type.

Ancestors

None

Relevant Operations

- DeleteSnapshot

Contents

The following table describes the elements contained in DeleteSnapshotType.

Name	Description
snapshotId	The ID of the Amazon EBS snapshot to delete. Type: xsd:string

DeleteVolumeResponseType

The DeleteVolumeResponseType data type.

Ancestors

None

Relevant Operations

- DeleteVolume

Contents

The following table describes the elements contained in DeleteVolumeResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if deletion succeeded. Otherwise, returns an error. Type: xsd:boolean

DeleteVolumeType

The DeleteVolumeType data type.

Ancestors

None

Relevant Operations

- DeleteVolume

Contents

The following table describes the elements contained in DeleteVolumeType.

Name	Description
volumeId	<p>The ID of the volume to delete. The volume remains in the deleting state for several minutes after entering this command.</p> <p>Type: xsd:string</p>

DeregisterImageResponse

The DeregisterImageResponseType data type.

Ancestors

None

Relevant Operations

- DeregisterImage

Contents

The following table describes the elements contained in DeregisterImageResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if deregistration succeeded. Otherwise, returns an error. Type: xsd:boolean

DeregisterImageType

The DeregisterImageType data type.

Ancestors

None

Relevant Operations

- DeregisterImage

Contents

The following table describes the elements contained in `DeregisterImageType`.

Name	Description
<code>imageId</code>	Unique ID of the AMI which was assigned during registration. To register an AMI, use <code>RegisterImage</code> . To view the AMI IDs of AMIs that belong to your account, use <code>DescribeImages</code> . Type: xsd:string

DescribeAddressesInfoTyp

The DescribeAddressesInfoType data type.

Ancestors

- [DescribeAddressesType](#)

Relevant Operations

- DescribeAddresses

Contents

The following table describes the elements contained in `DescribeAddressesInfoType`.

Name	Description
<code>item</code>	Information for one elastic IP address. Type: DescribeAddressesItemType

DescribeAddressesItemType

The `DescribeAddressesItemType` data type.

Ancestors

- [DescribeAddressesInfoType](#)

Relevant Operations

- DescribeAddresses

Contents

The following table describes the elements contained in `DescribeAddressesItemType`.

Name	Description
<code>publicIP</code>	Elastic IP address to describe. Type: xsd:string

DescribeAddressesResponse

The `DescribeAddressesResponseInfoType` data type.

Ancestors

- [DescribeAddressesResponseType](#)

Relevant Operations

- DescribeAddresses

Contents

The following table describes the elements contained in `DescribeAddressesResponseInfoType`.

Name	Description
<code>item</code>	Information about an instance. Type: DescribeAddressesResponseItemType

DescribeAddressesResponse

The `DescribeAddressesResponseItem` data type.

Ancestors

- [DescribeAddressesResponseInfoType](#)

Relevant Operations

- DescribeAddresses

Contents

The following table describes the elements contained in `DescribeAddressesResponseItemType`.

Name	Description
<code>instanceId</code>	The ID of the instance. Type: xsd:string
<code>publicIP</code>	The public IP address. Type: xsd:string

DescribeAddressesResponse

The `DescribeAddressesResponseType` data type.

Ancestors

None

Relevant Operations

- DescribeAddresses

Contents

The following table describes the elements contained in `DescribeAddressesResponseType`.

Name	Description
<code>addressesSet</code>	The set of IP addresses. Type: DescribeAddressesResponseInfoType
<code>requestId</code>	The ID of the request. Type: xsd:string

DescribeAddressesType

The DescribeAddressesType data type.

Ancestors

None

Relevant Operations

- DescribeAddresses

Contents

The following table describes the elements contained in `DescribeAddressesType`.

Name	Description
<code>publicIpsSet</code>	Set of elastic IP addresses. Type: DescribeAddressesInfoType

DescribeAvailabilityZones

The `DescribeAvailabilityZonesResponse` type.

Ancestors

None

Relevant Operations

- `DescribeAvailabilityZones`

Contents

The following table describes the elements contained in `DescribeAvailabilityZonesResponseType`.

Name	Description
<code>availabilityZoneInfo</code>	Availability Zone information. Type: AvailabilityZoneSetType
<code>requestId</code>	The ID of the request. Type: xsd:string

DescribeAvailabilityZones

The `DescribeAvailabilityZonesSetItemType` data type.

Ancestors

- [DescribeAvailabilityZonesSetType](#)

Relevant Operations

- `DescribeAvailabilityZones`

Contents

The following table describes the elements contained in `DescribeAvailabilityZonesSetItemType`.

Name	Description
<code>zoneName</code>	Availability Zone name. Type: xsd:string

DescribeAvailabilityZones

The `DescribeAvailabilityZonesSetType` data type.

Ancestors

- [DescribeAvailabilityZonesType](#)

Relevant Operations

- `DescribeAvailabilityZones`

Contents

The following table describes the elements contained in `DescribeAvailabilityZonesSetType`.

Name	Description
<code>item</code>	Information for one Availability Zone. Type: DescribeAvailabilityZonesSetItemType

DescribeAvailabilityZones^r

The `DescribeAvailabilityZonesType` data type.

Ancestors

None

Relevant Operations

- `DescribeAvailabilityZones`

Contents

The following table describes the elements contained in `DescribeAvailabilityZonesType`.

Name	Description
<code>availabilityZoneSet</code>	Set of Availability Zones. Type: DescribeAvailabilityZonesSetType

DescribeBundleTasksInfoT

The `DescribeBundleTasksInfoType` data type.

Ancestors

- [DescribeBundleTasksType](#)

Relevant Operations

- `DescribeBundleTasks`

Contents

The following table describes the elements contained in `DescribeBundleTasksInfoType`.

Name	Description
<code>item</code>	Information for one bundle task. Type: DescribeBundleTasksItemType

DescribeBundleTasksItem

The `DescribeBundleTasksItemType` data type.

Ancestors

- [DescribeBundleTasksInfoType](#)

Relevant Operations

- `DescribeBundleTasks`

Contents

The following table describes the elements contained in `DescribeBundleTasksItemType`.

Name	Description
<code>bundleId</code>	The ID of the bundle task to describe. Type: xsd:string

DescribeBundleTasksResponse

The `DescribeBundleTasksResponseType` data type.

Ancestors

None

Relevant Operations

- `DescribeBundleTasks`

Contents

The following table describes the elements contained in `DescribeBundleTasksResponseType`.

Name	Description
<code>bundleInstanceTasksSet</code>	Bundle task set. Type: BundleInstanceTasksSetType
<code>requestId</code>	The ID of the request. Type: xsd:string

DescribeBundleTasksType

The DescribeBundleTasksType data type.

Ancestors

None

Relevant Operations

- `DescribeBundleTasks`

Contents

The following table describes the elements contained in `DescribeBundleTasksType`.

Name	Description
<code>bundlesSet</code>	Set of bundle tasks. Type: DescribeBundleTasksInfoType

DescribeImageAttributeRe

The `DescribeImageAttributeResponseType` data type.

Ancestors

None

Relevant Operations

- `DescribeImageAttribute`

Contents

The following table describes the elements contained in `DescribeImageAttributeResponseType`.

Name	Description
<code>blockDeviceMapping</code>	Block device mapping set. Type: BlockDeviceMappingType
<code>imageId</code>	The ID of the AMI. Type: xsd:string
<code>kernel</code>	Kernel set. Type: NullableAttributeValueType
<code>launchPermission</code>	Launch permissions set. Type: LaunchPermissionListType
<code>productCodes</code>	Product codes set. Type: ProductCodeListType
<code>ramdisk</code>	RAM disk set. Type: NullableAttributeValueType
<code>requestId</code>	The ID of the request. Type: xsd:string

DescribeImageAttributesG

The `DescribeImageAttributesGroup` data type.

Ancestors

- [DescribeImageAttributeType](#)

Relevant Operations

- `DescribeImageAttribute`

Contents

The following table describes the elements contained in `DescribeImageAttributesGroup`.

Name	Description
<code>blockDeviceMapping</code>	Describes the mapping that defines native device names to use when exposing virtual devices. Type: EmptyElementType
<code>kernel</code>	Describes the ID of the kernel associated with the AMI. Type: EmptyElementType
<code>launchPermission</code>	Describes the launch permissions associated with the AMI. Type: EmptyElementType
<code>productCodes</code>	Describes the product code associated with the AMI. Type: EmptyElementType
<code>ramdisk</code>	Describes the ID of the RAM disk associated with the AMI. Type: EmptyElementType

DescribeImageAttributeTy

The `DescribeImageAttributeType` data type.

Ancestors

None

Relevant Operations

- `DescribeImageAttribute`

Contents

The following table describes the elements contained in `DescribeImageAttributeType`.

Name	Description
<code>DescribeImageAttributesGroup</code>	The image attributes group. Type: DescribeImageAttributesGroup
<code>imageId</code>	The ID of the AMI for which an attribute will be described. Type: xsd:string

DescribeImagesExecutable

The `DescribeImagesExecutableBySetType` data type.

Ancestors

- [DescribeImagesType](#)

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesExecutableBySetType`.

Name	Description
<code>item</code>	Information for one user. Type: DescribeImagesExecutableByType

DescribeImagesExecutable

The `DescribeImagesExecutableByType` data type.

Ancestors

- [DescribeImagesExecutableBySetType](#)

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesExecutableByType`.

Name	Description
<code>user</code>	Returns AMIs for which the specified user has explicit launch permissions. The user ID can be a user's account ID, <code>self</code> to return AMIs for which the sender of the request has explicit launch permissions, or <code>all</code> to return AMIs with public launch permissions. Type: <code>xsd:string</code>

DescribeImagesInfoType

The DescribeImagesInfoType data type.

Ancestors

- [DescribeImagesType](#)

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesInfoType`.

Name	Description
<code>item</code>	Information for one image. Type: DescribeImagesItemType

DescribeImagesItemType

The DescribeImagesItemType data type.

Ancestors

- [DescribeImagesInfoType](#)

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesItemType`.

Name	Description
<code>imageId</code>	AMI IDs to describe. Type: xsd:string

DescribeImagesOwnersType

The `DescribeImagesOwnersType` data type.

Ancestors

- [DescribeImagesType](#)

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesOwnersType`.

Name	Description
<code>item</code>	Information for one owner. Type: DescribeImagesOwnerType

DescribeImagesOwnerTyp

The DescribeImagesOwnerType data type.

Ancestors

- [DescribeImagesOwnersType](#)

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesOwnerType`.

Name	Description
<code>owner</code>	Returns AMIs owned by the specified owner. Multiple owners can be specified. The IDs <code>amazon</code> , <code>self</code> , and <code>explicit</code> can be used to include AMIs owned by Amazon, AMIs owned by the user, and AMIs for which the user has explicit launch permissions, respectively. Type: <code>xsd:string</code>

DescribeImagesResponseI1

The `DescribeImagesResponseInfoType` data type.

Ancestors

- [DescribeImagesResponseType](#)

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesResponseInfoType`.

Name	Description
<code>item</code>	Information for one image. Type: DescribeImagesResponseItemType

DescribeImagesResponseItem

The `DescribeImagesResponseItemType` data type.

Ancestors

- [DescribeImagesResponseInfoType](#)

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesResponseType`.

Name	Description
<code>architecture</code>	The architecture of the image (i386 or x86_64). Type: xsd:string
<code>imageId</code>	The ID of the AMI. Type: xsd:string
<code>imageLocation</code>	The location of the AMI. Type: xsd:string
<code>imageOwnerId</code>	AWS Access Key ID of the image owner. Type: xsd:string
<code>imageState</code>	Current state of the AMI. If the operation returns <code>available</code> , the image is successfully registered and available for launching. If the operation returns <code>deregistered</code> , the image is deregistered and no longer available for launching. Type: xsd:string
<code>imageType</code>	The type of image (machine, kernel, or ramdisk). Type: xsd:string
<code>isPublic</code>	Returns <code>true</code> if this image has public launch permissions. Returns <code>false</code> if it only has implicit and explicit launch permissions. Type: xsd:boolean
<code>kernelId</code>	The kernel associated with the image, if any. Only applicable for machine images. Type: xsd:string
<code>platform</code>	The operating platform of the instance.

	Type: xsd:string
productCodes	Product codes of the AMI. Type: ProductCodesSetType
ramdiskId	The RAM disk associated with the image, if any. Only applicable for machine images. Type: xsd:string

DescribeImagesResponseType

The `DescribeImagesResponseType` data type.

Ancestors

None

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesResponseType`.

Name	Description
<code>imagesSet</code>	Image set. Type: DescribeImagesResponseInfoType
<code>requestId</code>	The ID of the request. Type: xsd:string

DescribeImagesType

The `DescribeImagesType` data type.

Ancestors

None

Relevant Operations

- `DescribeImages`

Contents

The following table describes the elements contained in `DescribeImagesType`.

Name	Description
<code>executableBySet</code>	Executable set. Type: DescribeImagesExecutableBySetType
<code>imagesSet</code>	Image set. Type: DescribeImagesInfoType
<code>ownersSet</code>	Information about an owner. Type: DescribeImagesOwnersType

DescribeInstancesInfoType

The `DescribeInstancesInfoType` data type.

Ancestors

- [DescribeInstancesType](#)

Relevant Operations

- `DescribeInstances`

Contents

The following table describes the elements contained in `DescribeInstancesInfoType`.

Name	Description
<code>item</code>	Information for one instance set. Type: DescribeInstancesItemType

DescribeInstancesItemType

The `DescribeInstancesItemType` data type.

Ancestors

- [DescribeInstancesInfoType](#)

Relevant Operations

- `DescribeInstances`

Contents

The following table describes the elements contained in `DescribeInstancesItemType`.

Name	Description
<code>instanceId</code>	Instance IDs to describe. Type: xsd:string

DescribeInstancesResponse

The `DescribeInstancesResponseType` data type.

Ancestors

None

Relevant Operations

- `DescribeInstances`

Contents

The following table describes the elements contained in `DescribeInstancesResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: <code>xsd:string</code>
<code>reservationSet</code>	Reservation set. Type: <code>ReservationSetType</code>

DescribeInstancesType

The DescribeInstancesType data type.

Ancestors

None

Relevant Operations

- `DescribeInstances`

Contents

The following table describes the elements contained in `DescribeInstancesType`.

Name	Description
<code>instancesSet</code>	Instances set. Type: DescribeInstancesInfoType

DescribeKeyPairsInfoType

The DescribeKeyPairsInfoType data type.

Ancestors

- [DescribeKeyPairsType](#)

Relevant Operations

- `DescribeKeyPairs`

Contents

The following table describes the elements contained in `DescribeKeyPairsInfoType`.

Name	Description
<code>item</code>	Information for a key pair. Type: DescribeKeyPairsItemType

DescribeKeyPairsItemType

The `DescribeKeyPairsItemType` data type.

Ancestors

- [DescribeKeyPairsInfoType](#)

Relevant Operations

- `DescribeKeyPairs`

Contents

The following table describes the elements contained in `DescribeKeyPairsItemType`.

Name	Description
keyName	Key pair to describe. Type: xsd:string

DescribeKeyPairsResponse

The `DescribeKeyPairsResponse` data type.

Ancestors

- [DescribeKeyPairsResponseType](#)

Relevant Operations

- `DescribeKeyPairs`

Contents

The following table describes the elements contained in `DescribeKeyPairsResponseInfoType`.

Name	Description
<code>item</code>	Information for a key pair. Type: DescribeKeyPairsResponseItemType

DescribeKeyPairsResponse

The `DescribeKeyPairsResponseItemType` data type.

Ancestors

- [DescribeKeyPairsResponseInfoType](#)

Relevant Operations

- `DescribeKeyPairs`

Contents

The following table describes the elements contained in `DescribeKeyPairsResponseType`.

Name	Description
<code>keyFingerprint</code>	A SHA-1 digest of the DER encoded private key. Type: <code>xsd:string</code>
<code>keyName</code>	The key pair name provided in the original request. Type: <code>xsd:string</code>

DescribeKeyPairsResponse

The `DescribeKeyPairsResponseType` data type.

Ancestors

None

Relevant Operations

- `DescribeKeyPairs`

Contents

The following table describes the elements contained in `DescribeKeyPairsResponseType`.

Name	Description
<code>keySet</code>	Information for a key pair. Type: DescribeKeyPairsResponseInfoType
<code>requestId</code>	The ID of the request. Type: xsd:string

DescribeKeyPairsType

The DescribeKeyPairsType data type.

Ancestors

None

Relevant Operations

- `DescribeKeyPairs`

Contents

The following table describes the elements contained in `DescribeKeyPairsType`.

Name	Description
keySet	Set of key pairs. Type: DescribeKeyPairsInfoType

DescribeRegionsResponseType

The `DescribeRegionsResponseType` data type.

Ancestors

None

Relevant Operations

- DescribeRegions

Contents

The following table describes the elements contained in `DescribeRegionsResponseType`.

Name	Description
<code>regionInfo</code>	Region set. Type: RegionSetType
<code>requestId</code>	The ID of the request. Type: xsd:string

DescribeRegionsSetItemType

The DescribeRegionsSetItemType data type.

Ancestors

- [DescribeRegionsSetType](#)

Relevant Operations

- DescribeRegions

Contents

The following table describes the elements contained in `DescribeRegionsSetItemType`.

Name	Description
<code>regionName</code>	Name of a region. Type: xsd:string

DescribeRegionsSetType

The DescribeRegionsSetType data type.

Ancestors

- [DescribeRegionsType](#)

Relevant Operations

- DescribeRegions

Contents

The following table describes the elements contained in `DescribeRegionsSetType`.

Name	Description
<code>item</code>	Information for a region. Type: DescribeRegionsSetItemType

DescribeRegionsType

The DescribeRegionsType data type.

Ancestors

None

Relevant Operations

- DescribeRegions

Contents

The following table describes the elements contained in `DescribeRegionsType`.

Name	Description
<code>regionSet</code>	Set of regions. Type: DescribeRegionsSetType

DescribeReservedInstancesOfferings

The `DescribeReservedInstancesOfferingsResponse` SetItem type data type.

Ancestors

- [DescribeReservedInstancesOfferingsResponseType](#)

Relevant Operations

- `DescribeReservedInstancesOfferings`

Contents

The following table describes the elements contained in `DescribeReservedInstancesOfferingsResponseSetItemTyp`

Name	Description
<code>availabilityZone</code>	The Availability Zone in which the Reserved Instance can be used. Type: xsd:string
<code>duration</code>	The duration of the Reserved Instance, in seconds. Type: xs:long
<code>fixedPrice</code>	The purchase price of the Reserved Instance. Type: xs:double
<code>instanceType</code>	The instance type on which the Reserved Instance can be used. Type: xsd:string
<code>productDescription</code>	The Reserved Instance description. Type: xsd:string
<code>reservedInstancesOfferingId</code>	The ID of the Reserved Instance offering. Type: xsd:string
<code>usagePrice</code>	The usage price of the Reserved Instance, per hour. Type: xs:double

DescribeReservedInstances

The
DescribeReservedInstancesOfferingsResponseSetType
data type.

Ancestors

- [DescribeReservedInstancesOfferingsResponseType](#)

Relevant Operations

- `DescribeReservedInstancesOfferings`

Contents

The following table describes the elements contained in `DescribeReservedInstancesOfferingsResponseSetType`.

Name	Description
<code>item</code>	Reserved Instance offerings set. Type: DescribeReservedInstancesOfferingsResponseSetItemType

DescribeReservedInstances

The `DescribeReservedInstancesOfferingsResponseType` data type.

Ancestors

None

Relevant Operations

- `DescribeReservedInstancesOfferings`

Contents

The following table describes the elements contained in `DescribeReservedInstancesOfferingsResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: xsd:string
<code>reservedInstancesOfferingsSet</code>	Reserved Instances offerings set. Type: DescribeReservedInstancesOfferingsResponseType

DescribeReservedInstances

The `DescribeReservedInstancesOfferingsSetItemType` data type.

Ancestors

- [DescribeReservedInstancesOfferingsSetType](#)

Relevant Operations

- `DescribeReservedInstancesOfferings`

Contents

The following table describes the elements contained in `DescribeReservedInstancesOfferingsSetItemType`.

Name	Description
<code>reservedInstancesOfferingId</code>	ID of the Reserved Instances to describe. Type: xsd:string

DescribeReservedInstances

The `DescribeReservedInstancesOfferingsSetType` data type.

Ancestors

- [DescribeReservedInstancesOfferingsType](#)

Relevant Operations

- `DescribeReservedInstancesOfferings`

Contents

The following table describes the elements contained in `DescribeReservedInstancesOfferingsSetType`.

Name	Description
<code>item</code>	Reserved Instances item. Type: DescribeReservedInstancesOfferingsSetItemType

DescribeReservedInstances

The `DescribeReservedInstancesOfferingsType` data type.

Ancestors

None

Relevant Operations

- `DescribeReservedInstancesOfferings`

Contents

The following table describes the elements contained in `DescribeReservedInstancesOfferingsType`.

Name	Description
<code>availabilityZone</code>	The Availability Zone in which the Reserved Instance can be used. Type: xsd:string
<code>instanceType</code>	The instance type on which the Reserved Instance can be used. Type: xsd:string
<code>productDescription</code>	The Reserved Instance description. Type: xsd:string
<code>reservedInstancesOfferingsSet</code>	Set of Reserved Instances. Type: <code>DescribeReservedInstancesOfferingsSetType</code>

DescribeReservedInstances

The `DescribeReservedInstancesResponseSetItemType` data type.

Ancestors

- [DescribeReservedInstancesResponseType](#)

Relevant Operations

- `DescribeReservedInstances`

Contents

The following table describes the elements contained in `DescribeReservedInstancesResponseSetItemType`.

Name	Description
<code>availabilityZone</code>	The Availability Zone in which the Reserved Instance can be used. Type: xsd:string
<code>duration</code>	The duration of the Reserved Instance, in seconds. Type: xs:long
<code>fixedPrice</code>	The purchase price of the Reserved Instance. Type: xs:double
<code>instanceCount</code>	The number of Reserved Instances purchased. Type: xs:integer
<code>instanceType</code>	The instance type on which the Reserved Instance can be used. Type: xsd:string
<code>productDescription</code>	The Reserved Instance description. Type: xsd:string
<code>reservedInstancesID</code>	The ID of the Reserved Instance. Type: xsd:string
<code>start</code>	The date and time the Reserved Instance started. Type: dateTime
<code>state</code>	The state of the Reserved Instance purchase. Type: xsd:string
<code>usagePrice</code>	

The usage price of the Reserved Instance, per hour.

Type: xs:double

DescribeReservedInstances

The `DescribeReservedInstancesResponseSetType` data type.

Ancestors

- [DescribeReservedInstancesResponseType](#)

Relevant Operations

- `DescribeReservedInstances`

Contents

The following table describes the elements contained in `DescribeReservedInstancesResponseType`.

Name	Description
<code>item</code>	Reserved Instance set. Type: DescribeReservedInstancesResponseSetItemType

DescribeReservedInstances

The `DescribeReservedInstancesResponseType` data type.

Ancestors

None

Relevant Operations

- `DescribeReservedInstances`

Contents

The following table describes the elements contained in `DescribeReservedInstancesResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: <code>xsd:string</code>
<code>reservedInstancesSet</code>	Reserved Instances set. Type: <code>DescribeReservedInstancesResponseSetType</code>

DescribeReservedInstances

The `DescribeReservedInstancesSetItemType` data type.

Ancestors

- [DescribeReservedInstancesSetType](#)

Relevant Operations

- `DescribeReservedInstances`

Contents

The following table describes the elements contained in `DescribeReservedInstancesSetItemType`.

Name	Description
<code>reservedInstancesId</code>	IDs of the Reserved Instance to describe. Type: xsd:string

DescribeReservedInstances

The `DescribeReservedInstancesSetType` data type.

Ancestors

- [DescribeReservedInstancesType](#)

Relevant Operations

- `DescribeReservedInstances`

Contents

The following table describes the elements contained in `DescribeReservedInstancesSetType`.

Name	Description
<code>item</code>	Reserved Instances item. Type: DescribeReservedInstancesSetItemType

DescribeReservedInstances

The `DescribeReservedInstancesType` data type.

Ancestors

None

Relevant Operations

- `DescribeReservedInstances`

Contents

The following table describes the elements contained in `DescribeReservedInstancesType`.

Name	Description
<code>reservedInstancesSet</code>	Set of Reserved Instances. Type: DescribeReservedInstancesSetType

DescribeSecurityGroupsRe

The DescribeSecurityGroupsResponseType data type.

Ancestors

None

Relevant Operations

- `DescribeSecurityGroups`

Contents

The following table describes the elements contained in `DescribeSecurityGroupsResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: xsd:string
<code>securityGroupInfo</code>	Security group set. Type: SecurityGroupSetType

DescribeSecurityGroupsSe

The DescribeSecurityGroupsSetItemType data type.

Ancestors

- [DescribeSecurityGroupsSetType](#)

Relevant Operations

- `DescribeSecurityGroups`

Contents

The following table describes the elements contained in `DescribeSecurityGroupsSetItemType`.

Name	Description
<code>groupName</code>	Name of the security group. Type: xsd:string

DescribeSecurityGroupsSe

The `DescribeSecurityGroupsSetType` data type.

Ancestors

- [DescribeSecurityGroupsType](#)

Relevant Operations

- `DescribeSecurityGroups`

Contents

The following table describes the elements contained in `DescribeSecurityGroupsSetType`.

Name	Description
<code>item</code>	Information for a security group. Type: DescribeSecurityGroupsSetItemType

DescribeSecurityGroupsType

The `DescribeSecurityGroupsType` data type.

Ancestors

None

Relevant Operations

- `DescribeSecurityGroups`

Contents

The following table describes the elements contained in `DescribeSecurityGroupsType`.

Name	Description
<code>securityGroupSet</code>	Set of security groups. Type: DescribeSecurityGroupsSetType

DescribeSnapshotAttribute

The `DescribeSnapshotAttributeResponse` type.

Ancestors

None

Relevant Operations

- `DescribeSnapshotAttribute`

Contents

The following table describes the elements contained in `DescribeSnapshotAttributeResponseType`.

Name	Description
<code>createVolumePermission</code>	Create volume permission element. Type: CreateVolumePermissionListType
<code>requestId</code>	The ID of the request. Type: xsd:string
<code>snapshotId</code>	The ID of the Amazon EBS snapshot. Type: xsd:string

DescribeSnapshotAttributesGroup

The `DescribeSnapshotAttributesGroup` data type.

Ancestors

- [DescribeSnapshotAttributeType](#)

Relevant Operations

- `DescribeSnapshotAttribute`

Contents

The following table describes the elements contained in `DescribeSnapshotAttributesGroup`.

Name	Description
<code>createVolumePermission</code>	Describes the snapshot attributes group. Type: EmptyElementType

DescribeSnapshotAttribute

The `DescribeSnapshotAttributeType` data type.

Ancestors

None

Relevant Operations

- `DescribeSnapshotAttribute`

Contents

The following table describes the elements contained in `DescribeSnapshotAttributeType`.

Name	Description
<code>DescribeSnapshotAttributesGroup</code>	Describe snapshot attribute element. Type: DescribeSnapshotAttributesGroup
<code>snapshotId</code>	The ID of the Amazon EBS snapshot. Type: xsd:string

DescribeSchemas

The DescribeSchemasType data type.

Ancestors

- [DescribeSnapshotsType](#)

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsOwnersType`.

Name	Description
<code>item</code>	Describe snapshot item. Type: DescribeSnapshotsOwnerType

DescribeSnapshotsOwner

The `DescribeSnapshotsOwnerType` data type.

Ancestors

- [DescribeSnapshotsOwnersType](#)

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsOwnerType`.

Name	Description
<code>owner</code>	Returns snapshots owned by the specified owner. Multiple owners can be specified. Type: xsd:string

DescribeSnapshotsResponse

The `DescribeSnapshotsResponseType` data type.

Ancestors

None

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: xsd:string
<code>snapshotSet</code>	Snapshot set. Type: DescribeSnapshotsSetResponseType

DescribeSnapshotsRestora

The `DescribeSnapshotsRestorableBySetType` data type.

Ancestors

- [DescribeSnapshotsType](#)

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsRestorableBySetType`.

Name	Description
<code>item</code>	Restorable by set type item. Type: DescribeSnapshotsRestorableByType

DescribeSnapshotsRestora

The `DescribeSnapshotsRestorableByType` data type.

Ancestors

- [DescribeSnapshotsRestorableBySetType](#)

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsRestorableByType`.

Name	Description
<code>user</code>	Account ID of a user that can create volumes from the snapshot. Type: xsd:string

DescribeSnapshotsSetItem

The `DescribeSnapshotsSetItemResponseType` data type.

Ancestors

- [DescribeSnapshotsSetResponseType](#)

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsSetItemResponseType`.

Name	Description
<code>description</code>	Description of the snapshot. Type: xsd:string
<code>ownerId</code>	AWS Access Key ID of the user who owns the snapshot. Type: xsd:string
<code>progress</code>	The progress of the snapshot, in percentage. Type: xsd:string
<code>snapshotId</code>	The ID of the snapshot. Type: xsd:string
<code>startTime</code>	Time stamp when the snapshot was initiated. Type: dateTime
<code>status</code>	Snapshot state (e.g., pending, completed, or error). Type: xsd:string
<code>volumeId</code>	The ID of the volume. Type: xsd:string

DescribeSnapshotsSetItem

The `DescribeSnapshotsSetItemType` data type.

Ancestors

- [DescribeSnapshotsSetType](#)

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsSetItemType`.

Name	Description
<code>snapshotId</code>	The ID of the Amazon EBS snapshot. Type: xsd:string

DescribeSnapshotsSetResp

The `DescribeSnapshotsSetResponseType` data type.

Ancestors

- [DescribeSnapshotsResponseType](#)

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsSetResponseType`.

Name	Description
<code>item</code>	Information for a snapshot. Type: DescribeSnapshotsSetItemResponseType

DescribeSnapshotsSetType

The DescribeSnapshotsSetType data type.

Ancestors

- [DescribeSnapshotsType](#)

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsSetType`.

Name	Description
<code>item</code>	Information for a snapshot. Type: DescribeSnapshotsSetItemType

DescribeSnapshotsType

The DescribeSnapshotsType data type.

Ancestors

None

Relevant Operations

- `DescribeSnapshots`

Contents

The following table describes the elements contained in `DescribeSnapshotsType`.

Name	Description
<code>ownersSet</code>	Set of owners that can create volumes from the instance. Type: DescribeSchemasOwnersType
<code>restorableBySet</code>	Set of users that can create volumes from the snapshot. Type: DescribeSchemasRestorableBySetType
<code>snapshotSet</code>	Set of snapshots. Type: DescribeSchemasSetType

DescribeVolumesResponse

The `DescribeVolumesResponseType` data type.

Ancestors

None

Relevant Operations

- Describe Volumes

Contents

The following table describes the elements contained in `DescribeVolumesResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: xsd:string
<code>volumeSet</code>	Volume set. Type: DescribeVolumesSetResponseType

DescribeVolumesSetItemR

The `DescribeVolumesSetItemResponseType` data type.

Ancestors

- [DescribeVolumesSetResponseType](#)

Relevant Operations

- Describe Volumes

Contents

The following table describes the elements contained in `DescribeVolumesSetItemResponseType`.

Name	Description
<code>attachmentSet</code>	Attachment set. Type: AttachmentSetResponseType
<code>availabilityZone</code>	Availability Zone in which the volume was created. Type: xsd:string
<code>createTime</code>	Time stamp when volume creation was initiated. Type: dateTime
<code>size</code>	The size of the volume, in GiBs. Type: xsd:string
<code>snapshotId</code>	Snapshot from which the volume was created (optional). Type: xsd:string
<code>status</code>	Volume state (e.g., <code>creating</code> , <code>available</code>) Type: xsd:string
<code>volumeId</code>	The ID of the volume. Type: xsd:string

DescribeVolumesSetItemType

The `DescribeVolumesSetItemType` data type.

Ancestors

- [DescribeVolumesSetType](#)

Relevant Operations

- Describe Volumes

Contents

The following table describes the elements contained in `DescribeVolumesSetItemType`.

Name	Description
<code>volumeId</code>	The ID of the volume to list. Type: xsd:string

DescribeVolumesSetResponse

The `DescribeVolumesSetResponseType` data type.

Ancestors

- [DescribeVolumesResponseType](#)

Relevant Operations

- Describe Volumes

Contents

The following table describes the elements contained in `DescribeVolumesSetResponseType`.

Name	Description
<code>item</code>	Information for a volume. Type: DescribeVolumesSetItemResponseType

DescribeVolumesSetType

The `DescribeVolumesSetType` data type.

Ancestors

- [DescribeVolumesType](#)

Relevant Operations

- Describe Volumes

Contents

The following table describes the elements contained in `DescribeVolumesSetType`.

Name	Description
<code>item</code>	Information for a volume. Type: DescribeVolumesSetItemType

DescribeVolumesType

The `DescribeVolumesType` data type.

Ancestors

None

Relevant Operations

- Describe Volumes

Contents

The following table describes the elements contained in `DescribeVolumesType`.

Name	Description
<code>volumeSet</code>	Set of volumes. Type: DescribeVolumesSetType

DetachVolumeResponseType

The DetachVolumeResponseType data type.

Ancestors

None

Relevant Operations

- DetachVolume

Contents

The following table describes the elements contained in `DetachVolumeResponseType`.

Name	Description
<code>attachTime</code>	Time stamp when the association was created. Type: <code>dateTime</code>
<code>device</code>	The device as it is exposed to the instance. Type: <code>xsd:string</code>
<code>instanceId</code>	The ID of the instance. Type: <code>xsd:string</code>
<code>requestId</code>	The ID of the request. Type: <code>xsd:string</code>
<code>status</code>	Attachment state (e.g., <code>attaching</code> , <code>attached</code> , <code>detaching</code> , or <code>detached</code>). Type: <code>xsd:string</code>
<code>volumeId</code>	The ID of the volume. Type: <code>xsd:string</code>

DetachVolumeType

The DetachVolumeType data type.

Ancestors

None

Relevant Operations

- DetachVolume

Contents

The following table describes the elements contained in `DetachVolumeType`.

Name	Description
<code>device</code>	The device name. Type: xsd:string
<code>force</code>	Forces detachment if the previous detachment attempt did not occur cleanly (logging into an instance, unmounting the volume, and detaching normally). This option can lead to data loss or a corrupted file system. Use this option only as a last resort to detach a volume from a failed instance. The instance will not have an opportunity to flush file system caches nor file system meta data. If you use this option, you must perform file system check and repair procedures. Type: xsd:boolean
<code>instanceId</code>	The ID of the instance. Type: xsd:string
<code>volumeId</code>	The ID of the volume. Type: xsd:string

DisassociateAddressResponse

The DisassociateAddressResponseType data type.

Ancestors

None

Relevant Operations

- DisassociateAddress

Contents

The following table describes the elements contained in DisassociateAddressResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if the IP address is disassociated from the instance. Otherwise, returns an error. Type: xsd:boolean

DisassociateAddressType

The DisassociateAddressType data type.

Ancestors

None

Relevant Operations

- DisassociateAddress

Contents

The following table describes the elements contained in DisassociateAddressType.

Name	Description
publicIP	IP address that you are disassociating from the instance. Type: xsd:string

EmptyElementType

The EmptyElementType data type.

Ancestors

- [DescribeImageAttributesGroup](#)
- [DescribeImageAttributesGroup](#)
- [DescribeImageAttributesGroup](#)
- [DescribeImageAttributesGroup](#)
- [DescribeImageAttributesGroup](#)
- [DescribeSnapshotAttributesGroup](#)
- [ResetImageAttributesGroup](#)
- [ResetImageAttributesGroup](#)
- [ResetSnapshotAttributesGroup](#)

Relevant Operations

- `DescribeImageAttribute`
- `DescribeSnapshotAttribute`
- `ResetImageAttribute`
- `ResetSnapshotAttribute`

Contents

The following table describes the elements contained in EmptyElementType.

Name	Description
none	These element contains no options. Type: xsd:string

GetConsoleOutputResponse

The GetConsoleOutputResponseType data type.

Ancestors

None

Relevant Operations

- GetConsoleOutput

Contents

The following table describes the elements contained in GetConsoleOutputResponseType.

Name	Description
instanceId	The instance ID. Type: xsd:string
output	The console output, Base64 encoded. Type: xsd:string
requestId	The ID of the request. Type: xsd:string
timestamp	The time the output was last updated. Type: dateTime

GetConsoleOutputType

The GetConsoleOutputType data type.

Ancestors

None

Relevant Operations

- GetConsoleOutput

Contents

The following table describes the elements contained in GetConsoleOutputType.

Name	Description
instanceId	ID of the instance for which you want console output. Type: xsd:string

GetPasswordDataResponse

The GetPasswordDataResponseType data type.

Ancestors

None

Relevant Operations

- GetPasswordData

Contents

The following table describes the elements contained in GetPasswordDataResponseType.

Name	Description
instanceId	The ID of the instance. Type: xsd:string
passwordData	The password of the instance. Type: xsd:string
requestId	The ID of the request. Type: xsd:string
timestamp	The time the data was last updated. Type: dateTime

GetPasswordDataType

The GetPasswordDataType data type.

Ancestors

None

Relevant Operations

- GetPasswordData

Contents

The following table describes the elements contained in GetPasswordDataType.

Name	Description
instanceId	The ID of the instance for which to get the password. Type: xsd:string

GroupItemType

The GroupItemType data type.

Ancestors

- [GroupSetType](#)

Relevant Operations

- `DescribeInstances`
- `RunInstances`
- `RunInstances`

Contents

The following table describes the elements contained in GroupItemType.

Name	Description
groupId	Name of the security group. Type: xsd:string

GroupSetType

The GroupSetType data type.

Ancestors

- [ReservationInfoType](#)
- [RunInstancesResponseType](#)
- [RunInstancesType](#)

Relevant Operations

- `DescribeInstances`
- `RunInstances`
- `RunInstances`

Contents

The following table describes the elements contained in GroupSetType.

Name	Description
item	Group set item. Type: GroupItemType

InstanceMonitoringStateType

The InstanceMonitoringStateType data type.

Ancestors

- [MonitorInstancesResponseType](#)
- [RunningInstancesItemType](#)

Relevant Operations

- MonitorInstances
- UnmonitorInstances
- DescribeInstances
- RunInstances

Contents

The following table describes the elements contained in InstanceMonitoringStateType.

Name	Description
state	State of monitoring for the instance. Type: xsd:string

InstanceStateType

The InstanceStateType data type.

Ancestors

- [RunningInstancesItemType](#)
- [TerminateInstancesResponseType](#)
- [TerminateInstancesResponseItemType](#)

Relevant Operations

- `DescribeInstances`
- `RunInstances`
- `TerminateInstances`

Contents

The following table describes the elements contained in `InstanceStateType`.

Name	Description
<code>code</code>	<p>A 16-bit unsigned integer. The high byte is an opaque internal value and should be ignored. The low byte is set based on the state represented:</p> <ul style="list-style-type: none">• 0: pending• 16: running• 32: shutting-down• 48: terminated <p>Type: integer</p>
<code>name</code>	<p>The current state of the instance.</p> <ul style="list-style-type: none">• pending: the instance is in the process of being launched• running: the instance launched (although the boot process might not be completed)• shutting-down: the instance started shutting down• terminated: the instance terminated <p>Type: xsd:string</p>

IpPermissionSetType

The IpPermissionSetType data type.

Ancestors

- [AuthorizeSecurityGroupIngressType](#)
- [RevokeSecurityGroupIngressType](#)
- [SecurityGroupItemType](#)

Relevant Operations

- AuthorizeSecurityGroupIngress
- RevokeSecurityGroupIngress
- DescribeSecurityGroups

Contents

The following table describes the elements contained in `IpPermissionSetType`.

Name	Description
<code>item</code>	Set of IP permissions. Type: IpPermissionType

IpPermissionType

The IpPermissionType data type.

Ancestors

- [IpPermissionSetType](#)

Relevant Operations

- AuthorizeSecurityGroupIngress
- RevokeSecurityGroupIngress
- DescribeSecurityGroups

Contents

The following table describes the elements contained in IpPermissionType.

Name	Description
fromPort	Start of port range for the TCP and UDP protocols, or an ICMP type number. An ICMP type number of -1 indicates a wildcard (i.e., any ICMP type number). Type: integer
groups	List of security group and user ID pairs. Type: UserIdGroupPairSetType
ipProtocol	IP protocol. Type: xsd:string
ipRanges	IP ranges. Type: IpRangeSetType
toPort	End of port range for the TCP and UDP protocols, or an ICMP code. An ICMP code of -1 indicates a wildcard (i.e., any ICMP code). Type: integer

IpRangeItemType

The IpRangeItemType data type.

Ancestors

- [IpRangeSetType](#)

Relevant Operations

- AuthorizeSecurityGroupIngress
- RevokeSecurityGroupIngress
- DescribeSecurityGroups

Contents

The following table describes the elements contained in IpRangeItemType.

Name	Description
cidrIp	CIDR range. Type: xsd:string

IpRangeSetType

The IpRangeSetType data type.

Ancestors

- [IpPermissionType](#)

Relevant Operations

- AuthorizeSecurityGroupIngress
- RevokeSecurityGroupIngress
- DescribeSecurityGroups

Contents

The following table describes the elements contained in IpRangeSetType.

Name	Description
item	Information for one IP range. Type: IpRangeItemType

LaunchPermissionItemType

The LaunchPermissionItemType data type.

Ancestors

- [LaunchPermissionListType](#)

Relevant Operations

- `DescribeImageAttribute`
- `ModifyImageAttribute`

Contents

The following table describes the elements contained in LaunchPermissionItemType.

Name	Description
group	Name of the group. Currently supports "all." Type: xsd:string
userId	AWS Access Key ID. Type: xsd:string

LaunchPermissionListType

The LaunchPermissionListType data type.

Ancestors

- [DescribeImageAttributeResponseType](#)
- [LaunchPermissionOperationType](#)
- [LaunchPermissionOperationType](#)
- [LaunchPermissionOperationType](#)

Relevant Operations

- `DescribeImageAttribute`
- `ModifyImageAttribute`

Contents

The following table describes the elements contained in LaunchPermissionListType.

Name	Description
item	Information for launch permissions. Type: LaunchPermissionItemType

LaunchPermissionOperation

The LaunchPermissionOperationType data type.

Ancestors

- [ModifyImageAttributeType](#)

Relevant Operations

- `ModifyImageAttribute`

Contents

The following table describes the elements contained in LaunchPermissionOperationType.

Name	Description
add	Adds permission. Type: LaunchPermissionListType
remove	Remove permission. Type: LaunchPermissionListType

ModifyImageAttributeRes]

The ModifyImageAttributeResponseType data type.

Ancestors

None

Relevant Operations

- `ModifyImageAttribute`

Contents

The following table describes the elements contained in `ModifyImageAttributeResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: <code>xsd:string</code>
<code>return</code>	Returns <code>true</code> if successful. Otherwise, returns an error. Type: <code>xsd:boolean</code>

ModifyImageAttributeTyp

The ModifyImageAttributeType data type.

Ancestors

None

Relevant Operations

- `ModifyImageAttribute`

Contents

The following table describes the elements contained in `ModifyImageAttributeType`.

Name	Description
<code>imageId</code>	The AMI ID. Type: xsd:string
<code>launchPermission</code>	Launch permission set. Type: LaunchPermissionOperationType
<code>productCodes</code>	Product code set. Type: ProductCodeListType

ModifySnapshotAttributeF

The ModifySnapshotAttributeResponseType data type.

Ancestors

None

Relevant Operations

- `ModifySnapshotAttribute`

Contents

The following table describes the elements contained in `ModifySnapshotAttributeResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: <code>xsd:string</code>
<code>return</code>	Returns <code>true</code> if successful. Otherwise, returns an error. Type: <code>xsd:boolean</code>

ModifySnapshotAttribute

The ModifySnapshotAttributeType data type.

Ancestors

None

Relevant Operations

- `ModifySnapshotAttribute`

Contents

The following table describes the elements contained in `ModifySnapshotAttributeType`.

Name	Description
<code>createVolumePermission</code>	Create volume permission element. Type: ???
<code>snapshotId</code>	The ID of the snapshot. Type: xsd:string

MonitoringInstanceType

The MonitoringInstanceType data type.

Ancestors

- [RunInstancesType](#)

Relevant Operations

- RunInstances

Contents

The following table describes the elements contained in MonitoringInstanceType.

Name	Description
enabled	Enables monitoring for the instance. Type: xsd:boolean

MonitorInstancesResponse

The MonitorInstancesResponseSetItemType data type.

Ancestors

- [MonitorInstancesResponseType](#)

Relevant Operations

- MonitorInstances
- UnmonitorInstances

Contents

The following table describes the elements contained in MonitorInstancesResponseType.

Name	Description
instanceId	Instance ID. Type: xsd:string
monitoring	Monitoring information. Type: InstanceMonitoringStateType

MonitorInstancesResponse

The MonitorInstancesResponseType data type.

Ancestors

- [MonitorInstancesResponseType](#)

Relevant Operations

- MonitorInstances
- UnmonitorInstances

Contents

The following table describes the elements contained in MonitorInstancesResponseType.

Name	Description
item	Instance Item. Type: MonitorInstancesResponseTypeItemType

MonitorInstancesResponseType

The MonitorInstancesResponseType data type.

Ancestors

None

Relevant Operations

- MonitorInstances
- UnmonitorInstances

Contents

The following table describes the elements contained in MonitorInstancesResponseType.

Name	Description
instancesSet	Monitor instance response set. Type: MonitorInstancesResponseType
requestId	The ID of the request. Type: xsd:string

MonitorInstancesSetItemT

The MonitorInstancesSetItemType data type.

Ancestors

- [MonitorInstancesSetType](#)

Relevant Operations

- MonitorInstances
- UnmonitorInstances

Contents

The following table describes the elements contained in MonitorInstancesSetItemType.

Name	Description
instanceId	Instance ID. Type: xsd:string

MonitorInstancesSetType

The MonitorInstancesSetType data type.

Ancestors

- [MonitorInstancesType](#)

Relevant Operations

- MonitorInstances
- UnmonitorInstances

Contents

The following table describes the elements contained in MonitorInstancesSetType.

Name	Description
item	Instance set. Type: MonitorInstancesSetItemType

MonitorInstancesType

The MonitorInstancesType data type.

Ancestors

None

Relevant Operations

- MonitorInstances
- UnmonitorInstances

Contents

The following table describes the elements contained in MonitorInstancesType.

Name	Description
instancesSet	Set of instances. Type: MonitorInstancesSetType

NullableAttributeValueTy[

The NullableAttributeValueType data type.

Ancestors

- [DescribeImageAttributeResponseType](#)
- [DescribeImageAttributeResponseType](#)

Relevant Operations

- `DescribeImageAttribute`

Contents

The following table describes the elements contained in NullableAttributeValue Type.

Name	Description
value	ID of the kernel or RAM disk. Type: xsd:string

PlacementRequestType

The PlacementRequestType data type.

Ancestors

- [RunInstancesType](#)

Relevant Operations

- RunInstances

Contents

The following table describes the elements contained in PlacementRequestType.

Name	Description
availabilityZone	Specifies the placement constraints (Availability Zones) for launching the instances. Type: xsd:string

PlacementResponseType

The PlacementResponseType data type.

Ancestors

- [RunningInstancesItemType](#)

Relevant Operations

- `DescribeInstances`
- `RunInstances`

Contents

The following table describes the elements contained in PlacementResponseType.

Name	Description
availabilityZone	Returns the Availability Zones of the instances. Type: xsd:string

ProductCodeItemType

The ProductCodeItemType data type.

Ancestors

- [ProductCodeListType](#)

Relevant Operations

- `DescribeImageAttribute`
- `ModifyImageAttribute`

Contents

The following table describes the elements contained in ProductCodeItemType.

Name	Description
productCode	Product code. Type: xsd:string

ProductCodeListType

The ProductCodeListType data type.

Ancestors

- [DescribeImageAttributeResponseType](#)
- [ModifyImageAttributeType](#)

Relevant Operations

- `DescribeImageAttribute`
- `ModifyImageAttribute`

Contents

The following table describes the elements contained in ProductCodeListType.

Name	Description
item	Information for one product code. Type: ProductCodeItemType

ProductCodesSetItemType

The ProductCodesSetItemType data type.

Ancestors

- [ProductCodesSetType](#)

Relevant Operations

- `DescribeImages`
- `DescribeInstances`
- `RunInstances`

Contents

The following table describes the elements contained in ProductCodesSetItemType.

Name	Description
productCode	Product code. Type: xsd:string

ProductCodesSetType

The ProductCodesSetType data type.

Ancestors

- [DescribeImagesResponseType](#)
- [RunningInstancesItemType](#)

Relevant Operations

- `DescribeImages`
- `DescribeInstances`
- `RunInstances`

Contents

The following table describes the elements contained in ProductCodesSetType.

Name	Description
item	Information for one product code. Type: ProductCodesSetItemType

PurchaseReservedInstance

The PurchaseReservedInstancesOfferingResponseType data type.

Ancestors

None

Relevant Operations

- PurchaseReservedInstancesOffering

Contents

The following table describes the elements contained in PurchaseReservedInstancesOfferingResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
reservedInstancesId	The IDs of the purchased Reserved Instances. Type: xsd:string

PurchaseReservedInstance

The PurchaseReservedInstancesOfferingType data type.

Ancestors

None

Relevant Operations

- PurchaseReservedInstancesOffering

Contents

The following table describes the elements contained in PurchaseReservedInstancesOfferingType.

Name	Description
instanceCount	The number of Reserved Instances to purchase. Type: integer
reservedInstancesOfferingId	The offering ID of the Reserved Instance to purchase. Type: xsd:string

RebootInstancesInfoType

The RebootInstancesInfoType data type.

Ancestors

- [RebootInstancesType](#)

Relevant Operations

- RebootInstances

Contents

The following table describes the elements contained in RebootInstancesInfoType.

Name	Description
item	Information for an instance. Type: RebootInstancesItemType

RebootInstancesItemType

The RebootInstancesItemType data type.

Ancestors

- [RebootInstancesInfoType](#)

Relevant Operations

- RebootInstances

Contents

The following table describes the elements contained in RebootInstancesItemType.

Name	Description
instanceId	One or more instance IDs. Type: xsd:string

RebootInstancesResponseType

The RebootInstancesResponseType data type.

Ancestors

None

Relevant Operations

- RebootInstances

Contents

The following table describes the elements contained in RebootInstancesResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if successful. Otherwise, returns an error. Type: xsd:boolean

RebootInstancesType

The RebootInstancesType data type.

Ancestors

None

Relevant Operations

- RebootInstances

Contents

The following table describes the elements contained in RebootInstancesType.

Name	Description
instancesSet	Launch permission set. Type: RebootInstancesInfoType

RegionItemType

The RegionItemType data type.

Ancestors

- [RegionSetType](#)

Relevant Operations

- DescribeRegions

Contents

The following table describes the elements contained in RegionItemType.

Name	Description
regionEndpoint	Region service endpoint. Type: xsd:string
regionName	Name of the region. Type: xsd:string

RegionSetType

The RegionSetType data type.

Ancestors

- [DescribeRegionsResponseType](#)

Relevant Operations

- DescribeRegions

Contents

The following table describes the elements contained in RegionSetType.

Name	Description
item	Information for a region. Type: RegionItemType

RegisterImageResponseType

The RegisterImageResponseType data type.

Ancestors

None

Relevant Operations

- RegisterImage

Contents

The following table describes the elements contained in RegisterImageResponseType.

Name	Description
imageId	Unique ID of the newly registered machine image. Type: xsd:string
requestId	The ID of the request. Type: xsd:string

RegisterImageType

The RegisterImageType data type.

Ancestors

None

Relevant Operations

- RegisterImage

Contents

The following table describes the elements contained in RegisterImageType.

Name	Description
imageLocation	Full path to your AMI manifest in Amazon S3 storage. Type: xsd:string

ReleaseAddressResponseType

The ReleaseAddressResponseType data type.

Ancestors

None

Relevant Operations

- ReleaseAddress

Contents

The following table describes the elements contained in ReleaseAddressResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if successful. Otherwise, returns an error. Type: xsd:boolean

ReleaseAddressType

The ReleaseAddressType data type.

Ancestors

None

Relevant Operations

- ReleaseAddress

Contents

The following table describes the elements contained in ReleaseAddressType.

Name	Description
publicIP	The IP address that you are releasing from your account. Type: xsd:string

ReservationInfoType

The ReservationInfoType data type.

Ancestors

- [ReservationSetType](#)

Relevant Operations

- `DescribeInstances`

Contents

The following table describes the elements contained in `ReservationInfoType`.

Name	Description
<code>groupSet</code>	Group set. Type: GroupSetType
<code>instancesSet</code>	Instance set. Type: RunningInstancesSetType
<code>ownerId</code>	AWS Access Key ID of the user who owns the reservation. Type: xsd:string
<code>requesterId</code>	ID of the requester. Type: xsd:string
<code>reservationId</code>	Unique ID of the reservation. Type: xsd:string

ReservationSetType

The ReservationSetType data type.

Ancestors

- [DescribeInstancesResponseType](#)

Relevant Operations

- `DescribeInstances`

Contents

The following table describes the elements contained in ReservationSetType.

Name	Description
item	Information for a reservation. Type: ReservationInfoType

ResetImageAttributeResponse

The ResetImageAttributeResponseType data type.

Ancestors

None

Relevant Operations

- ResetImageAttribute

Contents

The following table describes the elements contained in ResetImageAttributeResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Indicates whether the attribute successfully reset. Type: xsd:boolean

ResetImageAttributesGroup

The ResetImageAttributesGroup data type.

Ancestors

- [ResetImageAttributeType](#)

Relevant Operations

- ResetImageAttribute

Contents

The following table describes the elements contained in ResetImageAttributesGroup.

Name	Description
launchPermission	Resets the launch permission attribute. Type: EmptyElementType

ResetImageAttributeType

The ResetImageAttributeType data type.

Ancestors

None

Relevant Operations

- ResetImageAttribute

Contents

The following table describes the elements contained in `ResetImageAttributeType`.

Name	Description
<code>imageId</code>	ID of the AMI on which the attribute will be reset. Type: xsd:string
<code>ResetImageAttributesGroup</code>	The reset image attribute group. Type: ResetImageAttributesGroup

ResetSnapshotAttributeRe

The ResetSnapshotAttributeResponseType data type.

Ancestors

None

Relevant Operations

- ResetSnapshotAttribute

Contents

The following table describes the elements contained in `ResetSnapshotAttributeResponseType`.

Name	Description
<code>requestId</code>	The ID of the request. Type: <code>xsd:string</code>
<code>return</code>	Specifies whether the snapshot permissions were reset. Type: <code>xsd:boolean</code>

ResetSnapshotAttributesG

The ResetSnapshotAttributesGroup data type.

Ancestors

- [ResetSnapshotAttributeType](#)

Relevant Operations

- ResetSnapshotAttribute

Contents

The following table describes the elements contained in `ResetSnapshotAttributesGroup`.

Name	Description
<code>createVolumePermission</code>	Create volume permission type. Type: EmptyElementType

ResetSnapshotAttributeTy

The ResetSnapshotAttributeType data type.

Ancestors

None

Relevant Operations

- ResetSnapshotAttribute

Contents

The following table describes the elements contained in ResetSnapshotAttributeType.

Name	Description
ResetSnapshotAttributesGroup	Snapshot group. Type: ResetSnapshotAttributesGroup
snapshotId	The ID of the snapshot. Type: xsd:string

RevokeSecurityGroupIngr

The RevokeSecurityGroupIngressResponseType data type.

Ancestors

None

Relevant Operations

- RevokeSecurityGroupIngress

Contents

The following table describes the elements contained in RevokeSecurityGroupIngressResponseType.

Name	Description
requestId	The ID of the request. Type: xsd:string
return	Returns true if the request is successful. Otherwise, returns an error. Type: xsd:boolean

RevokeSecurityGroupIngr

The RevokeSecurityGroupIngressType data type.

Ancestors

None

Relevant Operations

- RevokeSecurityGroupIngress

Contents

The following table describes the elements contained in RevokeSecurityGroupIngressType.

Name	Description
groupName	Name of the group to modify. Type: xsd:string
ipPermissions	Set of permissions to add to the group. Type: IpPermissionSetType
userId	AWS Access Key ID. Type: xsd:string

RunInstancesResponseType

The RunInstancesResponseType data type.

Ancestors

None

Relevant Operations

- RunInstances

Contents

The following table describes the elements contained in RunInstancesResponseType.

Name	Description
groupSet	Group set. Type: GroupSetType
instancesSet	Instance set. Type: RunningInstancesSetType
ownerId	AWS Access Key ID of the user who owns the reservation. Type: xsd:string
requesterId	ID of the requester. Type: xsd:string
requestId	The ID of the request. Type: xsd:string
reservationId	Unique ID of the reservation. Type: xsd:string

RunInstancesType

The RunInstancesType data type.

Ancestors

None

Relevant Operations

- RunInstances

Contents

The following table describes the elements contained in RunInstancesType.

Name	Description
additionalInfo	Specifies additional information to make available to the instance(s). Type: xsd:string
addressingType	Deprecated. Type: xsd:string
blockDeviceMapping	Specifies how block devices are exposed to the instance. Each mapping is made up of a virtualName and a deviceName. Type: BlockDeviceMappingType
groupSet	Group set. Type: GroupSetType
imageId	Unique ID of a machine image, returned by a call to RegisterImage. Type: xsd:string
instanceType	Specifies the instance type. Type: xsd:string
kernelId	The ID of the kernel with which to launch the instance. Type: xsd:string
keyName	The name of the key pair. Type: xsd:string
maxCount	Maximum number of instances to launch. If the value is more than Amazon EC2 can launch, the largest possible number above minCount will be launched instead. Type: integer

<code>minCount</code>	Minimum number of instances to launch. If the value is more than Amazon EC2 can launch, no instances are launched at all. Type: <code>integer</code>
<code>monitoring</code>	Specifies whether to enable monitoring for the instance. Type: MonitoringInstanceType
<code>placement</code>	Placement item. Type: PlacementRequestType
<code>ramdiskID</code>	The ID of the RAM disk with which to launch the instance. Some kernels require additional drivers at launch. Check the kernel requirements for information on whether you need to specify a RAM disk. To find kernel requirements, go to the Resource Center and search for the kernel ID. Type: <code>xsd:string</code>
<code>subnetID</code>	Specifies the subnet ID within which to launch the instance(s) for Amazon Virtual Private Cloud. Type: <code>xsd:string</code>
<code>userData</code>	MIME, Base64-encoded user data. Type: UserDataType

RunningInstancesItemType

The RunningInstancesItemType data type.

Ancestors

- [RunningInstancesSetType](#)

Relevant Operations

- `DescribeInstances`
- `RunInstances`

Contents

The following table describes the elements contained in `RunningInstancesItemType`.

Name	Description
<code>amiLaunchIndex</code>	The AMI launch index, which can be used to find this instance within the launch group. For more information, go to the Metadata section of the Amazon Elastic Compute Cloud Developer Guide . Type: xsd:string
<code>dnsName</code>	The public DNS name assigned to the instance. This DNS name is contactable from outside the Amazon EC2 network. This element remains empty until the instance enters a running state. Type: xsd:string
<code>imageId</code>	Image ID of the AMI used to launch the instance. Type: xsd:string
<code>instanceId</code>	Unique ID of the instance launched. Type: xsd:string
<code>instanceState</code>	The current state of the instance. Type: InstanceStateType
<code>instanceType</code>	The instance type. Type: xsd:string
<code>ipAddress</code>	Specifies the IP address of the instance. Type: xsd:string
<code>kernelId</code>	Optional. Kernel associated with this instance. Type: xsd:string
<code>keyName</code>	If this instance was launched with an associated key pair, this displays the key pair

	<p>name.</p> <p>Type: xsd:string</p>
launchTime	<p>The time the instance launched.</p> <p>Type: dateTime</p>
monitoring	<p>Specifies whether monitoring is enabled for the instance.</p> <p>Type: InstanceMonitoringStateType</p>
placement	<p>The location where the instance launched.</p> <p>Type: PlacementResponseType</p>
platform	<p>Platform of the instance (e.g., Windows).</p> <p>Type: xsd:string</p>
privateDnsName	<p>The private DNS name assigned to the instance. This DNS name can only be used inside the Amazon EC2 network. This element remains empty until the instance enters a running state.</p> <p>Type: xsd:string</p>
privateIpAddress	<p>Specifies the private IP address that is assigned to the instance (Amazon VPC).</p> <p>Type: xsd:string</p>
productCodes	<p>Product codes attached to this instance.</p> <p>Type: ProductCodesSetType</p>
ramdiskId	<p>Optional. RAM disk associated with this instance.</p> <p>Type: xsd:string</p>
reason	<p>Reason for the most recent state transition. This might be an empty string.</p> <p>Type: xsd:string</p>
subnetId	<p>Specifies the subnet ID in which the instance is running (Amazon Virtual Private Cloud).</p> <p>Type: xsd:string</p>
vpcId	<p>Specifies the VPC in which the instance is running (Amazon Virtual Private Cloud).</p> <p>Type: xsd:string</p>

RunningInstancesSetType

The RunningInstancesSetType data type.

Ancestors

- [ReservationInfoType](#)
- [RunInstancesResponseType](#)

Relevant Operations

- `DescribeInstances`
- `RunInstances`

Contents

The following table describes the elements contained in RunningInstancesSetType.

Name	Description
item	Running instance set item. Type: RunningInstancesItemType

SecurityGroupItemType

The SecurityGroupItemType data type.

Ancestors

- [SecurityGroupSetType](#)

Relevant Operations

- `DescribeSecurityGroups`

Contents

The following table describes the elements contained in `SecurityGroupItemType`.

Name	Description
<code>groupDescription</code>	Description of the security group. Type: xsd:string
<code>groupName</code>	Name of the security group. Type: xsd:string
<code>ipPermissions</code>	Set of IP permissions associated with the security group. Type: IpPermissionSetType
<code>ownerId</code>	AWS Access Key ID of the owner of the security group. Type: xsd:string

SecurityGroupSetType

The SecurityGroupSetType data type.

Ancestors

- [DescribeSecurityGroupsResponseType](#)

Relevant Operations

- `DescribeSecurityGroups`

Contents

The following table describes the elements contained in SecurityGroupSetType.

Name	Description
item	Information for a security group. Type: SecurityGroupItemType

TerminateInstancesInfoType

The TerminateInstancesInfoType data type.

Ancestors

- [TerminateInstancesType](#)

Relevant Operations

- TerminateInstances

Contents

The following table describes the elements contained in TerminateInstancesInfoType.

Name	Description
item	Information for a instance. Type: TerminateInstancesItemType

TerminateInstancesItemType

The TerminateInstancesItemType data type.

Ancestors

- [TerminateInstancesInfoType](#)

Relevant Operations

- TerminateInstances

Contents

The following table describes the elements contained in TerminateInstancesItemType.

Name	Description
instanceId	Instance ID to terminate. Type: xsd:string

TerminateInstancesResponse

The TerminateInstancesResponseType data type.

Ancestors

- [TerminateInstancesResponseType](#)

Relevant Operations

- TerminateInstances

Contents

The following table describes the elements contained in TerminateInstancesResponseInfoType.

Name	Description
item	Response item. Type: TerminateInstancesResponseItemType

TerminateInstancesResponse

The TerminateInstancesResponseType data type.

Ancestors

- [TerminateInstancesResponseInfoType](#)

Relevant Operations

- TerminateInstances

Contents

The following table describes the elements contained in TerminateInstancesResponseType.

Name	Description
instanceId	Instance ID. Type: xsd:string
previousState	Previous state. Type: InstanceStateType
shutdownState	Shutdown state. Type: InstanceStateType

TerminateInstancesResponse

The TerminateInstancesResponseType data type.

Ancestors

None

Relevant Operations

- TerminateInstances

Contents

The following table describes the elements contained in TerminateInstancesResponseType.

Name	Description
instancesSet	Instances set. Type: TerminateInstancesResponseType
requestId	The ID of the request. Type: xsd:string

TerminateInstancesType

The TerminateInstancesType data type.

Ancestors

None

Relevant Operations

- TerminateInstances

Contents

The following table describes the elements contained in TerminateInstancesType.

Name	Description
instancesSet	Set of instances. Type: TerminateInstancesInfoType

UserDataType

The `UserDataType` data type.

Ancestors

- [RunInstancesType](#)

Relevant Operations

- RunInstances

Contents

The following table describes the elements contained in `UserDataType`.

Name	Description
<code>data</code>	MIME, Base64-encoded user data. Type: <code>xsd:string</code>

UserIdGroupPairSetType

The UserIdGroupPairSetType data type.

Ancestors

- [IpPermissionType](#)

Relevant Operations

- AuthorizeSecurityGroupIngress
- RevokeSecurityGroupIngress
- DescribeSecurityGroups

Contents

The following table describes the elements contained in `UserIdGroupPairSetType`.

Name	Description
<code>item</code>	Information for one security group. Type: UserIdGroupPairType

UserIdGroupPairType

The UserIdGroupPairType data type.

Ancestors

- [UserIdGroupPairSetType](#)

Relevant Operations

- AuthorizeSecurityGroupIngress
- RevokeSecurityGroupIngress
- DescribeSecurityGroups

Contents

The following table describes the elements contained in UserIdGroupPairType.

Name	Description
groupName	Name of the security group. Cannot be used when specifying a CIDR IP address. Type: xsd:string
userId	AWS User ID of an account. Cannot be used when specifying a CIDR IP address. Type: xsd:string

API Error Codes

Overview

There are two types of error codes: client and server.

Client error codes suggest that the error was caused by something the client did, such as an authentication failure or an invalid AMI identifier. In the SOAP API, These error codes are prefixed with `Client`. For example: `Client.AuthFailure`. In the Query API, these errors are accompanied by a 400-series HTTP response code.

Server error codes suggest a server-side issue caused the error and should be reported. In the SOAP API, these error codes are prefixed with `Server`. For example: `Server.Unavailable`. In the Query API, these errors are accompanied by a 500-series HTTP response code.

Summary of Client Error Codes

Error Code	Description	Notes
AddressLimitExceeded	User has the maximum number of allowed IP addresses.	Each user has an IP address limit. For new users, this limit is 5. If you need more than 5 Elastic IP addresses, please complete the

[Amazon EC2 Elastic IP Address Request Form](#). We will ask you to think through your use case and help us understand your need for additional addresses.

AttachmentLimitExceeded The limit on the number of Amazon EBS volumes attached to one instance has been exceeded. **AuthFailure** User not authorized. You might be trying to run an AMI for which you do not have permission. **IncorrectState** Volume is in incorrect state To attach to an instance, it must be in the 'available' state.

InstanceLimitExceeded User has max allowed concurrent running instances. Each user has a concurrent running instance limit. For new users, this limit is 20. If you need more than 20 instances, please complete the

[Amazon EC2 Instance Request Form](#) and your request will be considered. **InvalidAMIAtributeItemValue** The value of an item added to, or removed from, an image attribute is invalid. If you are specifying a **userId**, check that it is in the form of an AWS account ID.

InvalidAMIID.Malformed Specified AMI ID is not valid. **InvalidAMIID.NotFound** Specified AMI ID does

not exist. **InvalidAMIID.Unavailable** Specified AMI ID has been deregistered and is no longer available.

InvalidAttachment.NotFound The instance cannot detach from a volume to which it is not attached.

InvalidDevice.InUse The device to which you are trying to attach (i.e. /dev/sdh) is already in use on the instance. **InvalidInstanceID.Malformed** Specified instance ID is not valid. **InvalidInstanceID.NotFound** Specified instance ID does not exist.

InvalidKeyPair.NotFound Specified key pair name does not exist. **InvalidKeyPair.Duplicate** Attempt to create a duplicate key pair. **InvalidGroup.NotFound** Specified group name does not exist.

InvalidGroup.Duplicate Attempt to create a duplicate group. **InvalidGroup.InUse** Specified group cannot be deleted because it is in use. **InvalidGroup.Reserved** Specified group name is a reserved name.

InvalidManifest Specified AMI has an unparsable Manifest. **InvalidParameterCombination** RunInstances was called with `minCount` and `maxCount` set to 0 or `minCount > maxCount`. **InvalidParameterValue** The value supplied for a parameter was invalid. Requests that could cause this error include (for example) supplying an invalid image attribute to the `DescribeImageAttribute` request or an invalid `version` or `encoding` value for the `userData` in a `RunInstances` request.

InvalidPermission.Duplicate Attempt to authorize a

permission that has already been authorized.

InvalidPermission.Malformed Specified permission is invalid. **InvalidReservationID.Malformed** Specified reservation ID is invalid.

InvalidReservationID.NotFound Specified reservation ID does not exist. **InvalidSnapshotID.Malformed** The snapshot ID that was passed as an argument was malformed. **InvalidSnapshotID.NotFound** The specified snapshot does not exist.

InvalidUserID.Malformed The user ID is neither in the form of an AWS account ID or one of the special values accepted by the owner or executableBy flags in the `DescribeImages` call. **InvalidReservedInstancesId** Reserved Instances ID not found.

InvalidReservedInstancesOfferingId Reserved Instances Offering ID not found.

InvalidVolumeID.Malformed The volume ID that was passed as an argument was malformed.

InvalidVolumeID.NotFound The volume specified does not exist. **InvalidVolumeID.Duplicate** The volume already exists in the system.

InvalidVolumeID.ZoneMismatch The specified volume ID and instance ID are in different Availability Zones.

InvalidZone.NotFound The specified zone does not exist. **InsufficientReservedInstancesCapacity** Insufficient Reserved Instances capacity.

NonEBSInstance The instance specified does not support

EBS. Please restart the instance and try again. This will ensure that the code is run on an instance with updated code. `PendingSnapshotLimitExceeded` The limit on the number of Amazon EBS snapshots in the pending state has been exceeded. `ReservedInstancesLimitExceeded` Your current quota does not allow you to purchase the required number of reserved instances.

`SnapshotLimitExceeded` The limit on the number of Amazon EBS snapshots has been exceeded.

`UnknownParameter` An unknown or unrecognized parameter was supplied. Requests that could cause this error include supplying a misspelled parameter or a parameter that is not supported for the specified API version. `VolumeLimitExceeded` The limit on the number of Amazon EBS volumes has been exceeded.

Summary of Server Error Codes

Error Code	Description	Notes
InternalError	Internal Error.	This error should not occur. If this persists, please contact us with details by posting a message on the AWS forums .
InsufficientAddressCapacity	Not enough available addresses to satisfy your minimum request.	Reduce the number of addresses you are requesting or wait for additional capacity to become available.
InsufficientInstanceCapacity	Not enough available instances to satisfy your minimum request.	Reduce the number of instances in your request or wait for additional capacity to become available.
InsufficientReservedInstanceCapacity	Not enough available Reserved Instances to satisfy your minimum request.	Reduce the number of Reserved Instances in your request or wait for additional capacity to become available.
Unavailable	The server is overloaded and cannot handle the request.	

Glossary

Amazon machine image (AMI)

An Amazon Machine Image (AMI) is an encrypted machine image stored in Amazon S3. It contains all the information necessary to boot instances of your software.

Amazon EBS

A type of storage that enables you to create volumes that can be mounted as devices by Amazon EC2 instances. Amazon EBS volumes behave like raw unformatted external block devices. They have user supplied device names and provide a block device interface. You can load a file system on top of Amazon EBS volumes, or use them just as you would use a block device.

Availability Zone

A distinct location within a region that is engineered to be insulated from failures in other Availability Zones and provides inexpensive, low latency network connectivity to other Availability Zones in the same region.

compute unit

An Amazon-generated measure that enables you to evaluate the CPU capacity of different Amazon EC2 instance types.

EBS

See [*Amazon EBS*](#).

Elastic Block Store

See [*Amazon EBS*](#).

elastic IP address

A static public IP address designed for dynamic cloud computing. Elastic IP addresses are associated with your account, not specific instances. Any elastic IP addresses that you associate with your account remain associated with your account until you explicitly release them. Unlike traditional static IP addresses, however, elastic IP addresses allow you to mask instance or Availability Zone failures by rapidly remapping your public IP addresses to any instance in your account.

ephemeral store

See *instance store*.

explicit launch permission

Launch permission granted to a specific user.

group

See [*security group*](#).

instance store

Every instance includes a fixed amount of storage space on which you can store data. This is not designed to be a permanent storage solution. If you need a permanent storage system, use Amazon EBS.

instance type

A specification that defines the memory, CPU, storage capacity, and hourly cost for an instance. Some instance types are designed for standard applications while others are designed for CPU-intensive applications.

gibibyte (GiB)

a contraction of giga binary byte, a gibibyte is 2^{30} bytes or 1,073,741,824 bytes. A gigabyte is 10^9 or 1,000,000,000 bytes. So yes, Amazon has bigger

bytes.

image

See *Amazon machine image*.

instance

Once an AMI has been launched, the resulting running system is referred to as an instance. All instances based on the same AMI start out identical and any information on them is lost when the instances are terminated or fail.

instance store

The disk storage associated with an instance. In the event an instance fails or is terminated (not simply rebooted), all content on the instance store is deleted.

group

Also known as a security group, groups define firewall rules that can be shared among a group of instances that have similar security requirements. The group is specified at instance launch.

launch permission

AMI attribute allowing users to launch an AMI

Linux

Amazon EC2 instances are available for many operating platforms, including Linux, Solaris, Windows, and others.

paid AMI

An AMI that you sell to other Amazon EC2 users. For more information, refer to the *Amazon DevPay Developer Guide*.

private IP address

All Amazon EC2 instances are assigned two IP addresses at launch: a private address (RFC 1918) and a public address that are directly mapped to each other through Network Address Translation (NAT).

public AMI

An AMI that all users have launch permissions for.

public data sets

Sets of large public data sets that can be seamlessly

integrated into AWS cloud-based applications. Amazon stores the data sets at no charge to the community and, like all AWS services, users pay only for the compute and storage they use for their own applications. These data sets currently include data from the Human Genome Project, the U.S. Census, Wikipedia, and other sources.

public IP address

All Amazon EC2 instances are assigned two IP addresses at launch: a private address (RFC 1918) and a public address that are directly mapped to each other through Network Address Translation (NAT).

region

A geographical area in which you can launch instances (e.g., US, EU).

reservation

A collection of instances started as part of the same launch request.

Reserved Instance

An additional Amazon EC2 pricing option. With

Reserved Instances, you can make a low one-time payment for each instance to reserve and receive a significant discount on the hourly usage charge for that instance.

security group

A security group is a named collection of access rules. These access rules specify which ingress (i.e., incoming) network traffic should be delivered to your instance. All other ingress traffic will be discarded.

shared AMI

AMIs that developers build and make available for other AWS developers to use.

Solaris

Amazon EC2 instances are available for many operating platforms, including Linux, Solaris, Windows, and others.

snapshot

Amazon EBS provides the ability to create snapshots or backups of your Amazon EBS volumes and store them in Amazon S3. You can use these snapshots as

the starting point for new Amazon EBS volumes and to protect your data for long term durability.

supported AMIs

These AMIs are similar to paid AMIs, except that you charge for software or a service that customers use with their own AMIs.

tebibyte (TiB)

a contraction of tera binary byte, a tebibyte is 2^{40} bytes or 1,099,511,627,776 bytes. A terabyte is 10^{12} or 1,000,000,000,000 bytes. So yes, Amazon has bigger bytes.

UNIX

Amazon EC2 instances are available for many operating platforms, including Linux, Solaris, Windows, and others.

Windows

Amazon EC2 instances are available for many operating platforms, including Linux, Solaris, Windows, and others.

Document Conventions

This section lists the common typographical and symbol use conventions for AWS technical publications.

Typographical Conventions

This section describes common typographical use conventions.

Convention	Description/Example
Call-outs	A call-out is a number in the body text to give you a visual reference. The reference point is for further discussion elsewhere. You can use this resource regularly. 1
Code in text	Inline code samples (including XML) and commands are identified with a special font. You can use the command <code>java -version</code> .
Code blocks	Blocks of sample code are set apart from the body and marked accordingly. <pre># ls -l /var/www/html/index.html -rw-rw-r-- 1 root root 1872 Jun 21 09:33 /var/www/html/index.htm # date Wed Jun 21 09:33:42 EDT 2006</pre>
Emphasis	Unusual or important words and phrases are marked with a special font. You <i>must</i> sign up for an account before you can use the service.
Internal cross references	References to a section in the same document are marked. See Document Conventions .
Logical values, constants, and regular expressions, abstracta	A special font is used for expressions that are important to identify, but are not code. If the value is <code>null</code> , the returned response will be <code>false</code> .
Product and feature names	Named AWS products and features are identified on first use. Create an <i>Amazon Machine Image</i> (AMI).

Operations	<p>In-text references to operations.</p> <p>Use the <code>GetHITResponse</code> operation.</p>
Parameters	<p>In-text references to parameters.</p> <p>The operation accepts the parameter <i>AccountID</i>.</p>
Response elements	<p>In-text references to responses.</p> <p>A container for one <code>CollectionParent</code> and one or more <code>CollectionItems</code>.</p>
Technical publication references	<p>References to other AWS publications. If the reference is hyperlinked, it is also underscored.</p> <p>For detailed conceptual information, see the <i>Amazon Mechanical Turk Developer Guide</i>.</p>
User entered values	<p>A special font marks text that the user types.</p> <p>At the password prompt, type MyPassword.</p>
User interface controls and labels	<p>Denotes named items on the UI for easy identification.</p> <p>On the File menu, click Properties.</p>
Variables	<p>When you see this style, you must change the value of the content when you copy the text of a sample to a command line.</p> <p><code>% ec2-register <your-s3-bucket>/image.manifest</code></p> <p>See also Symbol Conventions.</p>

Symbol Conventions

This section describes the common use of symbols.

Convention	Symbol	Description/Example
Mutually exclusive parameters	(Parentheses and vertical bars)	<p>Within a code description, bar separators denote options from which one must be chosen.</p> <pre>% data = hdfread (start stride edge)</pre>
Optional parameters	[square brackets]	<p>Within a code description, square brackets denote completely optional commands or parameters.</p> <pre>% sed [-n, -quiet]</pre>
XML variable text		<p>Use square brackets in XML examples to differentiate them from tags.</p> <pre><CustomerId>[ID]</CustomerId></pre>
Variables	<arrow brackets>	<p>Within a code sample, arrow brackets denote a variable that must be replaced with a valid value.</p> <pre>% ec2-register <your-s3-bucket>/image.manifest</pre>

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