Amazon Elastic Compute Cloud

CLI Reference

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Amazon Elastic Compute Cloud: CLI Reference

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Welcome 1
API Tools Reference 2
Common Options for API Tools 5
List of API Tools by Function 6
ec2-allocate-address 12
ec2-associate-address 15
ec2-associate-dhcp-options 19
ec2-associate-route-table 22
ec2-attach-internet-gateway 25
ec2-attach-network-interface 28
ec2-attach-volume 31
ec2-attach-vpn-gateway 34
ec2-authorize 37
ec2-bundle-instance 43
ec2-cancel-bundle-task 47
ec2-cancel-conversion-task 50
ec2-cancel-export-task 53
ec2-cancel-spot-instance-requests 55
ec2-confirm-product-instance 58
ec2-create-instance-export-task 61
ec2-create-customer-gateway 64
ec2-create-dhcp-options 67
ec2-create-group 70
ec2-create-image 74
ec2-create-internet-gateway 77
ec2-create-keypair 79
ec2-create-network-acl 82
ec2-create-network-acl-entry 85
ec2-create-network-interface 89
ec2-create-placement-group 92
ec2-create-route 95
ec2-create-route-table 98
ec2-create-snapshot 101
ec2-create-spot-datafeed-subscription 104
ec2-create-subnet 107
ec2-create-tags 110
ec2-create-volume 113
ec2-create-vpc 116
ec2-create-vpn-connection 119
ec2-create-vpn-gateway 123
ec2-delete-customer-gateway 126
ec2-delete-dhcp-options 128
ec2-delete-disk-image 130
ec2-delete-group 133
ec2-delete-internet-gateway 136
ec2-delete-keypair 139
ec2-delete-network-acl 141
ec2-delete-network-acl-entry 143
ec2-delete-network-interface 146
ec2-delete-placement-group 148
ec2-delete-route 150
ec2-delete-route-table 153
ec2-delete-snapshot 155
ec2-delete-spot-datafeed-subscription 158
ec2-delete-subnet 160
ec2-delete-tags 162
ec2-delete-volume 165
ec2-delete-vpc 168

ec2-delete-vpn-connection 170
ec2-delete-vpn-gateway 173
ec2-deregister 176
ec2-describe-addresses 178
ec2-describe-availability-zones 182
ec2-describe-bundle-tasks 185
ec2-describe-conversion-tasks 189
ec2-describe-customer-gateways 192
ec2-describe-dhcp-options 196
ec2-describe-export-tasks 200
ec2-describe-group 203
ec2-describe-image-attribute 208
ec2-describe-images 211
ec2-describe-instance-attribute 218
ec2-describe-instances 222
ec2-describe-instance-status 231
ec2-describe-internet-gateways 236
ec2-describe-keypairs 240
ec2-describe-network-acls 243
ec2-describe-network-interfaces 248
ec2-describe-network-interface-attribute 254
ec2-describe-placement-groups 257
ec2-describe-regions 260
ec2-describe-reserved-instances 263
ec2-describe-reserved-instances-offerings 268
ec2-describe-route-tables 274
ec2-describe-snapshot-attribute 279
ec2-describe-snapshots 282
ec2-describe-spot-datafeed-subscription 287
ec2-describe-spot-instance-requests 289
ec2-describe-spot-price-history 295
ec2-describe-subnets 300
ec2-describe-tags 304
ec2-describe-volumes 308
ec2-describe-volume-attribute 313
ec2-describe-volume-status 316
ec2-describe-vpcs 321
ec2-describe-vpn-connections 325
ec2-describe-vpn-gateways 330
ec2-detach-internet-gateway 334
ec2-detach-network-interface 337
ec2-detach-volume 339
ec2-detach-vpn-gateway 342
ec2-disassociate-address 345
ec2-disassociate-route-table 348
ec2-enable-volume-io 351
ec2-fingerprint-key 353
ec2-get-console-output 355
ec2-get-password 358
ec2-import-instance 361
ec2-import-keypair 367
ec2-import-volume 370
ec2-migrate-image 375
ec2-modify-image-attribute 379
ec2-modify-instance-attribute 383
ec2-modify-network-interface-attribute 387
ec2-modify-snapshot-attribute 391
ec2-modify-volume-attribute 394

ec2-monitor-instances 397
ec2-purchase-reserved-instances-offering 399
ec2-reboot-instances 402
ec2-register 405
ec2-release-address 410
ec2-replace-network-acl-association 413
ec2-replace-network-acl-entry 416
ec2-replace-route 420
ec2-replace-route-table-association 423
ec2-report-instance-status 426
ec2-request-spot-instances 430
ec2-reset-image-attribute 438
ec2-reset-instance-attribute 441
ec2-reset-network-interface-attribute 444
ec2-reset-snapshot-attribute 446
ec2-resume-import 449
ec2-revoke 453
ec2-run-instances 458
ec2-start-instances 467
ec2-stop-instances 470
ec2-terminate-instances 473
ec2-unmonitor-instances 476
ec2-upload-disk-image 478
AMI Tools Reference 482
Common Options for AMI Tools 482
ec2-bundle-image 483
ec2-bundle-vol 486
ec2-delete-bundle 490
ec2-download-bundle 492
ec2-migrate-bundle 494
ec2-migrate-manifest 497
ec2-unbundle 499
ec2-upload-bundle 501
Document History 504

Welcome

This is the *Amazon Elastic Compute Cloud Command Line Reference*. It provides the syntax, description, options, and usage examples for each of the Amazon EC2 API tools and AMI tools. The API tools are commands that wrap the Amazon EC2 API actions. The AMI tools are commands you install and run *on an instance* for the purposes of managing AMIs. Often, these AMI tools are installed with the AMI.

Amazon EC2 is a web service that provides resizeable computing capacity that you use to build and host your software systems.

Note

This guide also includes the commands for Amazon Virtual Private Cloud (Amazon VPC). For more information about the service, go to the Amazon Virtual Private Cloud User Guide.

Amazon EC2 API Tools	Download the Amazon EC2 API tools.
Amazon EC2 AMI Tools	Download the Amazon EC2 AMI tools.
Getting Started with the CLI	Instructions for installing the Amazon EC2 API tools.
Commands for AMI Tools (p. 482)	Alphabetical list of all Amazon EC2 AMI tools commands.
Commands for API Tools (p. 6)	Alphabetical list of all Amazon EC2 API tools commands.
Common Options for AMI Tools (p. 482)	Options that all AMI tools commands can use.
Common Options for API Tools (p. 5)	Options that all API tools commands can use.
Regions and Endpoints	Itemized regions and endpoints for all AWS products.

API Tools Reference

Topics

- Common Options for API Tools (p. 5)
- List of API Tools by Function (p. 6)
- ec2-allocate-address (p. 12)
- ec2-associate-address (p. 15)
- ec2-associate-dhcp-options (p. 19)
- ec2-associate-route-table (p. 22)
- ec2-attach-internet-gateway (p. 25)
- ec2-attach-network-interface (p. 28)
- ec2-attach-volume (p. 31)
- ec2-attach-vpn-gateway (p. 34)
- ec2-authorize (p. 37)
- ec2-bundle-instance (p. 43)
- ec2-cancel-bundle-task (p. 47)
- ec2-cancel-conversion-task (p. 50)
- ec2-cancel-export-task (p. 53)
- ec2-cancel-spot-instance-requests (p. 55)
- ec2-confirm-product-instance (p. 58)
- ec2-create-instance-export-task (p. 61)
- ec2-create-customer-gateway (p. 64)
- ec2-create-dhcp-options (p. 67)
- ec2-create-group (p. 70)
- ec2-create-image (p. 74)
- ec2-create-internet-gateway (p. 77)
- ec2-create-keypair (p. 79)
- ec2-create-network-acl (p. 82)
- ec2-create-network-acl-entry (p. 85)
- ec2-create-network-interface (p. 89)
- ec2-create-placement-group (p. 92)
- ec2-create-route (p. 95)
- ec2-create-route-table (p. 98)

- ec2-create-snapshot (p. 101)
- ec2-create-spot-datafeed-subscription (p. 104)
- ec2-create-subnet (p. 107)
- ec2-create-tags (p. 110)
- ec2-create-volume (p. 113)
- ec2-create-vpc (p. 116)
- ec2-create-vpn-connection (p. 119)
- ec2-create-vpn-gateway (p. 123)
- ec2-delete-customer-gateway (p. 126)
- ec2-delete-dhcp-options (p. 128)
- ec2-delete-disk-image (p. 130)
- ec2-delete-group (p. 133)
- ec2-delete-internet-gateway (p. 136)
- ec2-delete-keypair (p. 139)
- ec2-delete-network-acl (p. 141)
- ec2-delete-network-acl-entry (p. 143)
- ec2-delete-network-interface (p. 146)
- ec2-delete-placement-group (p. 148)
- ec2-delete-route (p. 150)
- ec2-delete-route-table (p. 153)
- ec2-delete-snapshot (p. 155)
- ec2-delete-spot-datafeed-subscription (p. 158)
- ec2-delete-subnet (p. 160)
- ec2-delete-tags (p. 162)
- ec2-delete-volume (p. 165)
- ec2-delete-vpc (p. 168)
- ec2-delete-vpn-connection (p. 170)
- ec2-delete-vpn-gateway (p. 173)
- ec2-deregister (p. 176)
- ec2-describe-addresses (p. 178)
- ec2-describe-availability-zones (p. 182)
- ec2-describe-bundle-tasks (p. 185)
- ec2-describe-conversion-tasks (p. 189)
- ec2-describe-customer-gateways (p. 192)
- ec2-describe-dhcp-options (p. 196)
- ec2-describe-export-tasks (p. 200)
- ec2-describe-group (p. 203)
- ec2-describe-image-attribute (p. 208)
- ec2-describe-images (p. 211)
- ec2-describe-instance-attribute (p. 218)
- ec2-describe-instances (p. 222)
- ec2-describe-instance-status (p. 231)
- ec2-describe-internet-gateways (p. 236)
- ec2-describe-keypairs (p. 240)
- ec2-describe-network-acls (p. 243)
- ec2-describe-network-interfaces (p. 248)

- ec2-describe-network-interface-attribute (p. 254)
- ec2-describe-placement-groups (p. 257)
- ec2-describe-regions (p. 260)
- ec2-describe-reserved-instances (p. 263)
- ec2-describe-reserved-instances-offerings (p. 268)
- ec2-describe-route-tables (p. 274)
- ec2-describe-snapshot-attribute (p. 279)
- ec2-describe-snapshots (p. 282)
- ec2-describe-spot-datafeed-subscription (p. 287)
- ec2-describe-spot-instance-requests (p. 289)
- ec2-describe-spot-price-history (p. 295)
- ec2-describe-subnets (p. 300)
- ec2-describe-tags (p. 304)
- ec2-describe-volumes (p. 308)
- ec2-describe-volume-attribute (p. 313)
- ec2-describe-volume-status (p. 316)
- ec2-describe-vpcs (p. 321)
- ec2-describe-vpn-connections (p. 325)
- ec2-describe-vpn-gateways (p. 330)
- ec2-detach-internet-gateway (p. 334)
- ec2-detach-network-interface (p. 337)
- ec2-detach-volume (p. 339)
- ec2-detach-vpn-gateway (p. 342)
- ec2-disassociate-address (p. 345)
- ec2-disassociate-route-table (p. 348)
- ec2-enable-volume-io (p. 351)
- ec2-fingerprint-key (p. 353)
- ec2-get-console-output (p. 355)
- ec2-get-password (p. 358)
- ec2-import-instance (p. 361)
- ec2-import-keypair (p. 367)
- ec2-import-volume (p. 370)
- ec2-migrate-image (p. 375)
- ec2-modify-image-attribute (p. 379)
- ec2-modify-instance-attribute (p. 383)
- ec2-modify-network-interface-attribute (p. 387)
- ec2-modify-snapshot-attribute (p. 391)
- ec2-modify-volume-attribute (p. 394)
- ec2-monitor-instances (p. 397)
- ec2-purchase-reserved-instances-offering (p. 399)
- ec2-reboot-instances (p. 402)
- ec2-register (p. 405)
- ec2-release-address (p. 410)
- ec2-replace-network-acl-association (p. 413)
- ec2-replace-network-acl-entry (p. 416)
- ec2-replace-route (p. 420)

- ec2-replace-route-table-association (p. 423)
- ec2-report-instance-status (p. 426)
- ec2-request-spot-instances (p. 430)
- ec2-reset-image-attribute (p. 438)
- ec2-reset-instance-attribute (p. 441)
- ec2-reset-network-interface-attribute (p. 444)
- ec2-reset-snapshot-attribute (p. 446)
- ec2-resume-import (p. 449)
- ec2-revoke (p. 453)
- ec2-run-instances (p. 458)
- ec2-start-instances (p. 467)
- ec2-stop-instances (p. 470)
- ec2-terminate-instances (p. 473)
- ec2-unmonitor-instances (p. 476)
- ec2-upload-disk-image (p. 478)

Common Options for API Tools

Most API tools described in this section accept the set of optional parameters described in the following table.

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45

Option	Description
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

List of API Tools by Function

Amazon DevPay

- ec2-confirm-product-instance (p. 58)

AMIs/Images

- ec2-create-image (p. 74)
- ec2-deregister (p. 176)
- ec2-describe-image-attribute (p. 208)
- ec2-describe-images (p. 211)
- ec2-migrate-image (p. 375)
- ec2-modify-image-attribute (p. 379)
- ec2-register (p. 405)
- ec2-reset-image-attribute (p. 438)

Availability Zones and Regions

- ec2-describe-availability-zones (p. 182)
- ec2-describe-regions (p. 260)

Customer Gateways (Amazon VPC)

- ec2-create-customer-gateway (p. 64)

- ec2-delete-customer-gateway (p. 126)
- ec2-describe-customer-gateways (p. 192)

DHCP Options (Amazon VPC)

- ec2-associate-dhcp-options (p. 19)
- ec2-create-dhcp-options (p. 67)
- ec2-delete-dhcp-options (p. 128)
- ec2-describe-dhcp-options (p. 196)

Amazon Elastic Block Store

- ec2-attach-volume (p. 31)
- ec2-create-snapshot (p. 101)
- ec2-create-volume (p. 113)
- ec2-delete-disk-image (p. 130)
- ec2-delete-snapshot (p. 155)
- ec2-delete-volume (p. 165)
- ec2-describe-snapshot-attribute (p. 279)
- ec2-describe-snapshots (p. 282)
- ec2-describe-volumes (p. 308)
- ec2-detach-volume (p. 339)
- ec2-import-volume (p. 370)
- ec2-modify-snapshot-attribute (p. 391)
- ec2-reset-snapshot-attribute (p. 446)

Elastic IP Addresses

- ec2-allocate-address (p. 12)
- ec2-associate-address (p. 15)
- ec2-describe-addresses (p. 178)
- ec2-disassociate-address (p. 345)
- ec2-release-address (p. 410)

Elastic Network Interfaces

- ec2-attach-network-interface (p. 28)
- ec2-create-network-interface (p. 89)
- ec2-delete-network-interface (p. 146)
- ec2-describe-network-interfaces (p. 248)
- ec2-describe-network-interface-attribute (p. 254)
- ec2-detach-network-interface (p. 337)

- ec2-modify-network-interface-attribute (p. 387)
- ec2-reset-network-interface-attribute (p. 444)

General

- ec2-get-console-output (p. 355)

Instances

- ec2-describe-instance-attribute (p. 218)
- ec2-describe-instances (p. 222)
- ec2-import-instance (p. 361)
- ec2-modify-instance-attribute (p. 383)
- ec2-reboot-instances (p. 402)
- ec2-reset-instance-attribute (p. 441)
- ec2-run-instances (p. 458)
- ec2-start-instances (p. 467)
- ec2-stop-instances (p. 470)
- ec2-terminate-instances (p. 473)

Internet Gateways (Amazon VPC)

- ec2-attach-internet-gateway (p. 25)
- ec2-create-internet-gateway (p. 77)
- ec2-delete-internet-gateway (p. 136)
- ec2-describe-internet-gateways (p. 236)
- ec2-detach-internet-gateway (p. 334)

Key Pairs

- ec2-create-keypair (p. 79)
- ec2-delete-keypair (p. 139)
- ec2-describe-keypairs (p. 240)
- ec2-fingerprint-key (p. 353)
- ec2-import-keypair (p. 367)

Monitoring

- ec2-monitor-instances (p. 397)
- ec2-unmonitor-instances (p. 476)

Network ACLs (Amazon VPC)

- ec2-create-network-acl (p. 82)

- ec2-create-network-acl-entry (p. 85)
- ec2-delete-network-acl (p. 141)
- ec2-delete-network-acl-entry (p. 143)
- ec2-describe-network-acls (p. 243)
- ec2-replace-network-acl-association (p. 413)
- ec2-replace-network-acl-entry (p. 416)

Placement Groups

- ec2-create-placement-group (p. 92)
- ec2-delete-placement-group (p. 148)
- ec2-describe-placement-groups (p. 257)

Reserved Instances

- ec2-describe-reserved-instances (p. 263)
- ec2-describe-reserved-instances-offerings (p. 268)
- ec2-purchase-reserved-instances-offering (p. 399)

Route Tables (Amazon VPC)

- ec2-associate-route-table (p. 22)
- ec2-create-route (p. 95)
- ec2-create-route-table (p. 98)
- ec2-delete-route (p. 150)
- ec2-delete-route-table (p. 153)
- ec2-describe-route-tables (p. 274)
- ec2-disassociate-route-table (p. 348)
- ec2-replace-route (p. 420)
- ec2-replace-route-table-association (p. 423)

Security Groups

- ec2-authorize (p. 37)
- ec2-create-group (p. 70)
- ec2-delete-group (p. 133)
- ec2-describe-group (p. 203)
- ec2-revoke (p. 453)

Spot Instances

- ec2-cancel-spot-instance-requests (p. 55)
- ec2-create-spot-datafeed-subscription (p. 104)

- ec2-delete-spot-datafeed-subscription (p. 158)
- ec2-describe-spot-datafeed-subscription (p. 287)
- ec2-describe-spot-instance-requests (p. 289)
- ec2-describe-spot-price-history (p. 295)
- ec2-request-spot-instances (p. 430)

Subnets (Amazon VPC)

- ec2-create-subnet (p. 107)
- ec2-delete-subnet (p. 160)
- ec2-describe-subnets (p. 300)

Tags

- ec2-create-tags (p. 110)
- ec2-delete-tags (p. 162)
- ec2-describe-tags (p. 304)

VM Import

- ec2-cancel-conversion-task (p. 50)
- ec2-delete-disk-image (p. 130)
- ec2-describe-conversion-tasks (p. 189)
- ec2-import-instance (p. 361)
- ec2-import-volume (p. 370)
- ec2-resume-import (p. 449)

VM Export

- ec2-cancel-export-task (p. 53)
- ec2-create-instance-export-task (p. 61)
- ec2-describe-export-tasks (p. 200)

VPCs (Amazon VPC)

- ec2-create-vpc (p. 116)
- ec2-delete-vpc (p. 168)
- ec2-describe-vpcs (p. 321)

VPN Connections (Amazon VPC)

- ec2-create-vpn-connection (p. 119)
- ec2-delete-vpn-connection (p. 170)
- ec2-describe-vpn-connections (p. 325)

Virtual Private Gateways (Amazon VPC)

- ec2-attach-vpn-gateway (p. 34)
- ec2-create-vpn-gateway (p. 123)
- ec2-delete-vpn-gateway (p. 173)
- ec2-describe-vpn-gateways (p. 330)
- ec2-detach-vpn-gateway (p. 342)

Windows

- ec2-bundle-instance (p. 43)
- ec2-cancel-bundle-task (p. 47)
- ec2-describe-bundle-tasks (p. 185)
- ec2-get-password (p. 358)

ec2-allocate-address

Description

This command applies to both EC2 Elastic IP addresses and VPC Elastic IP addresses.

For EC2 addresses: This command acquires an Elastic IP address for use with your AWS account. For more information about EC2 Elastic IP addresses, go to Instance Addressing in the *Amazon Elastic Compute Cloud User Guide*.

For VPC addresses: This command acquires an Elastic IP address for use with your VPC. For information about VPC addresses and how they differ from EC2 addresses, go to the Elastic IP Addresses in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2allocaddr**.

Syntax

```
ec2-allocate-address [-d domain]
```

Options

Name	Description	Required
`-d, --domain` *domain*	Set to `vpc` to allocate the address for use with VPC instances. Type: String Default: Address is standard (allocated to EC2). Valid Values: `vpc` Condition: Required when allocating an address for use with VPC instances. Example: -d vpc	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ADDRESS")
- Elastic IP address for use with your account
- The address's domain (standard or vpc)
- Allocation ID (an ID that AWS assigns to represent the allocation of the address for use with Amazon VPC; returned only for VPC Elastic IP addresses)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example returns an EC2 Elastic IP address for use with the account.

```
PROMPT> ec2-allocate-address
ADDRESS 192.0.2.1
```

Example Request

This example returns a VPC Elastic IP address for use with your VPC.

```
PROMPT> ec2-allocate-address -d vpc
ADDRESS  198.51.100.1     vpc     eipalloc-5723d13e
```

Related Operations

- ec2-describe-addresses (p. 178)
- ec2-release-address (p. 410)
- ec2-associate-address (p. 15)
- ec2-disassociate-address (p. 345)

ec2-associate-address

Description

This action applies to both EC2 Elastic IP addresses and VPC Elastic IP addresses.

For EC2 addresses: This action associates an Elastic IP address with an instance in your AWS account. If the IP address is currently assigned to another instance, the IP address is assigned to the new instance. For more information about EC2 Elastic IP addresses, go to Instance Addressing in the *Amazon Elastic Compute Cloud User Guide*.

For VPC addresses: This action associates a VPC Elastic IP address with an instance or a network interface in your VPC. If the IP address is currently assigned to another instance or a network interface, Amazon EC2 returns an error. For information about VPC addresses and how they differ from EC2 addresses, go to the Elastic IP Addresses in the *Amazon Virtual Private Cloud User Guide*.

This is an idempotent operation. If you enter it more than once, Amazon EC2 does not return an error.

The short version of this command is **ec2assocaddr**.

Syntax

```
ec2-associate-address [-i instance_id | -n network interface] [ip_address | -a allocation_id]
```

Options

Name	Description	Required
`-i, --instance` *instance_id*	The instance to associate with the IP address. Type: String Default: None Example: -i i-43a4412a	Yes
ip_address	EC2 Elastic IP address to assign to the instance. Type: String Default: None Condition: Required for EC2 Elastic IP addresses. Example: 192.0.2.1	Conditional
`-a, --allocation-id` *allocation_id*	The allocation ID that AWS returned when you allocated the Elastic IP address to your VPC. Type: String Default: None Condition: Required for VPC Elastic IP addresses. Example: -a eipalloc-5723d13e	Conditional

Name	Description	Required
`-n, --network-interface` *interface_id*	The interface to associate with the IP address. This is only available in Amazon VPC. Type: String Default: None Condition: Conditional Example: -n eni-bc7299d4	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.

Option	Description
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ADDRESS")
- Elastic IP address that you are assigning to the instance
- Instance to which the IP address is assigned
- Association ID (returned only for VPC addresses)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example associates an EC2 Elastic IP address with an instance.

```
PROMPT> ec2-associate-address 192.0.2.1 -i i-43a4412a
ADDRESS 192.0.2.1 i-43a4412a
```

Example Request

This example associates a VPC Elastic IP address with an instance running in your VPC.

```
PROMPT> ec2-associate-address -a eipalloc-5723d13e -i i-4fd2431a
ADDRESS   i-43a4412a   eipalloc-5723d13e   eipassoc-fc5ca095
```

Example Request

This example associates a VPC Elastic IP address with a network interface in your VPC.

```
PROMPT> ec2-associate-address -a eipalloc-4a4c6c23 -n eni-1001fa78
ADDRESS   i-1ae1ae78   eipalloc-4a4c6c23   eipassoc-1841907a
```

Related Operations

- ec2-allocate-address (p. 12)
- ec2-describe-addresses (p. 178)

- ec2-release-address (p. 410)
- ec2-disassociate-address (p. 345)

ec2-associate-dhcp-options

Description

Associates a set of DHCP options (that you've previously created) with the specified VPC. Or, associates no DHCP options with the VPC.

After you associate the options with the VPC, any existing instances and all new instances that you launch in that VPC use the options. You don't need to restart or relaunch the instances. They automatically pick up the changes within a few hours, depending on how frequently the instance renews its DHCP lease. If you want, you can explicitly renew the lease using the operating system on the instance.

For more information about the supported DHCP options and using them with Amazon VPC, go to Using DHCP Options in Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2assocdopt**.

Syntax

```
ec2-associate-dhcp-options { dhcp_options_id | default } -c vpc_id
```

Options

Name	Description	Required
dhcp_options_id	The ID of the DHCP options you want to associate with the VPC, or "default" if you want the VPC to use no DHCP options. Type: String Default: None Example: dopt-7a8b9c2d	Yes
`-c` *vpc_id*	The ID of the VPC you want to associate the DHCP options with. Type: String Default: None Example: -c vpc-1a2b3c4d	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("DHCPOPTIONS")
- The DHCP options ID (or "default" if no DHCP options are associated with the VPC)
- The VPC ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example associates the DHCP options with ID dopt-7a8b9c2d with the VPC with ID vpc-1a2b3c4d.

```
PROMPT> ec2-associate-dhcp-options dopt-7a8b9c2d -c vpc-1a2b3c4d
DHCPOPTIONS  dopt-7a8b9c2d  vpc-1a2b3c4d
```

Example Request

This example changes the VPC with ID vpc-1a2b3c4d to use no DHCP options.

```
PROMPT> ec2-associate-dhcp-options default -c vpc-1a2b3c4d
DHCPOPTIONS default vpc-1a2b3c4d
```

Related Operations

- ec2-create-dhcp-options (p. 67)
- ec2-describe-dhcp-options (p. 196)
- ec2-delete-dhcp-options (p. 128)

ec2-associate-route-table

Description

Associates a subnet with a route table. The subnet and route table must be in the same VPC. This association causes traffic originating from the subnet to be routed according to the routes in the route table. The action returns an association ID, which you need if you want to disassociate the route table from the subnet later. A route table can be associated with multiple subnets.

For more information about route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2assocrtb**.

Syntax

```
ec2-associate-route-table route_table_id -s subnet_id
```

Options

Name	Description	Required
route_table_id	The ID of the route table. Type: String Default: None Example: rtb-6aa34603	Yes
`-s` *subnet_id*	The ID of the subnet. Type: String Default: None Example: -s subnet-92a045fb	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ASSOCIATION")
- The route table association ID (needed to disassociate the route table)
- The route table ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example associates the route-table (with ID rtb-6aa34603) with the subnet with ID subnet-92a045fb.

```
PROMPT> ec2-associate-route-table rtb-6aa34603 -s subnet-92a045fb
ASSOCIATION  rtbassoc-61a34608 rtb-6aa34603    subnet-92a045fb
```

Related Operations

- ec2-create-route-table (p. 98)
- ec2-delete-route-table (p. 153)
- ec2-disassociate-route-table (p. 348)
- ec2-describe-route-tables (p. 274)
- ec2-replace-route-table-association (p. 423)

ec2-attach-internet-gateway

Description

Attaches an Internet gateway to a VPC, enabling connectivity between the Internet and the VPC. For more information about your VPC and Internet gateway, go to the Amazon Virtual Private Cloud User Guide.

Note

For VPCs that existed before the 2011-01-01 API version: Before you can attach an Internet gateway, you must delete the legacy security group. For more information, go to "Deleting the Legacy Security Group" in the Security Groups section of the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2attigw**.

Syntax

```
ec2-attach-internet-gateway internet_gateway_id -c vpc_id
```

Options

Name	Description	Required
internet_gateway_id	The ID of the Internet gateway to attach. Type: String Default: None Example: igw-c3a643aa	Yes
-c, --vpc vpc_id	The ID of the VPC. Type: String Default: None Example: -c vpc-d9a045b0	Yes

Common Options

Option	Description
`--region REGION`	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the `-U` option. Default: The EC2_URL environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example attaches the Internet gateway with ID igw-eaad4883 to the VPC with ID vpc-11ad4878.

```
PROMPT> ec2-attach-internet-gateway igw-eaad4883 -c vpc-11ad4878
ATTACHMENT      vpc-11ad4878    attaching
```

Related Operations

- ec2-create-internet-gateway (p. 77)
- ec2-delete-internet-gateway (p. 136)
- ec2-detach-internet-gateway (p. 334)
- ec2-describe-internet-gateways (p. 236)

ec2-attach-network-interface

Description

Attaches a network interface to an instance.

The short version of this command is **ec2attnic**.

Syntax

```
ec2-attach-network-interface NETWORKINTERFACE -i, --instance INSTANCE -d,
--device-index DEVICEINDEX
```

Options

Name	Description	Required
-i, --instance INSTANCE	The ID of the instance that will be attached to the network interface. Type: String Default: None Example: -i i-640a3c17	Yes
-d, --device-index DEVICEINDEX	The index of the device for the network interface attachment on the instance. Type: String Default: None Example: -d 1 eni-b35da6da	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command attaches a network interface to the specified instance and returns the ID of the network interface that was attached.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example attaches the specified network interface to the specified instance.

```
PROMPT> ec2-attach-network-interface  eni-b35da6da -i i-640a3c17 -d 1
eni-attach-dd3fdab4
```

Related Operations

- ec2-create-network-interface (p. 89)

- ec2-delete-network-interface (p. 146)
- ec2-describe-network-interfaces (p. 248)
- ec2-describe-network-interface-attribute (p. 254)
- ec2-detach-network-interface (p. 337)
- ec2-modify-network-interface-attribute (p. 387)
- ec2-reset-network-interface-attribute (p. 444)

ec2-attach-volume

Description

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

For a list of supported device names, see Attaching the Volume to an Instance. Any devices that aren't reserved for instance store volumes can be attached to an Amazon EBS volume. For more information, see Amazon EC2 Instance Store.

Note

If a volume has an AWS Marketplace product code:

- The volume can only be attached to the root device of a stopped instance.
- You must be subscribed to the AWS Marketplace code that is on the volume.
- The configuration (instance type, operating system) of the instance must support that specific AWS Marketplace code. For example, you cannot take a volume from a Windows instance and attach it to a Linux instance.
- AWS Marketplace product codes will be copied from the volume to the instance.

For an overview of the AWS Marketplace, go to https://aws.amazon.com/marketplace/help/200900000. For details on how to use the AWS Marketplace, see AWS Marketplace.

The short version of this command is **ec2attvol**.

Syntax

```
ec2-attach-volume volume_id --instance instance_id --device device
```

Options

Name	Description	Required
volume_id	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 Example: vol-4d826724	Yes
-i, --instance *instance_id*	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 Example: -i i-6058a509	Yes

Name	Description	Required
`-d, --device` *device*	Specifies how the device is exposed to the instance. Type: String Default: None Example: -d /dev/sdf (for Linux/UNIX) or -d xvdf (for Windows)	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.

Option	Description
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- ATTACHMENT identifier
- The volume ID
- The instance ID
- The device name within Amazon EC2
- The attachment state (attaching, attached, detached, detaching, error)
- The time when the attachment was initiated

Amazon EC2 command line tools display errors using stderr.

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 User Guide.

```
PROMPT> ec2-attach-volume vol-4d826724 -i i-6058a509 -d /dev/sdh
ATTACHMENT vol-4d826724 i-6058a509 /dev/sdh attaching 2008-02-14T00:15:00+0000
```

Related Operations

- ec2-create-volume (p. 113)
- ec2-delete-volume (p. 165)
- ec2-describe-volumes (p. 308)
- ec2-detach-volume (p. 339)

ec2-attach-vpn-gateway

Description

Attaches a virtual private gateway to a VPC. For more information, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2attvgw**.

Syntax

```
ec2-attach-vpn-gateway -p vpn_gateway_id  -c vpc_id
```

Options

Name	Description	Required
vpn_gateway_id	The ID of the virtual private gateway to attach to the VPC. Type: String Default: None Example: vgw-8db04f81	Yes
-c, --vpc *vpc_id*	The ID of the VPC. Type: String Default: None Example: -c vpc-1a2b3c4d	Yes

Common Options

Option	Description
--region *REGION*	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the -U option. Default: The EC2_URL environment variable, or us-east-1 if the environment variable is not set. Example: --region eu-west-1
-U, --url *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The EC2_URL environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: -U https://ec2.amazonaws.com
-K, --private-key *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VGWATTACHMENT")
- ID of the attached VPC
- State of the attachment (attaching, attached, detaching, detached)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example attaches the virtual private gateway with ID vgw-8db04f81 to the VPC with ID vpc-1a2b3c4d.

```
PROMPT> ec2-attach-vpn-gateway vgw-8db04f81 -c vpc-1a2b3c4d
VGWATTACHMENT   vpc-1a2b3c4d   attaching
```

Related Operations

- ec2-create-vpn-gateway (p. 123)
- ec2-describe-vpn-gateways (p. 330)
- ec2-detach-vpn-gateway (p. 342)
- ec2-create-vpc (p. 116)
- ec2-create-vpn-connection (p. 119)

ec2-authorize

Description

This command applies to both EC2 security groups and VPC security groups. For information about VPC security groups and how they differ from EC2 security groups, go to Security Groups in the *Amazon Virtual Private Cloud User Guide*.

This command adds a *rule* to a security group. The rule can be for ingress traffic, or for egress traffic (only if this is a VPC security group).

For EC2 security groups and ingress rules: This command either gives one or more CIDR IP address ranges permission to access a security group in your account, or it gives one or more security groups (called the *source groups*) permission to access a security group in your account. A source group can be in your own AWS account, or another.

For VPC security groups and ingress rules: This command either gives one or more CIDR IP address ranges permission to access a security group in your VPC, or it gives one or more other security groups (called the *source groups*) permission to access a security group in your VPC. The groups must all be in the same VPC.

For VPC security groups and egress rules: This command permits instances in a VPC security group to send traffic to either one or more destination CIDR IP address ranges, or to one or more destination security groups in the same VPC.

Each rule consists of the protocol (e.g., TCP), plus either a CIDR range, or a source group (for ingress rules) or destination group (for egress rules). For TCP and UDP, you must also specify the destination port or port ranges. You can specify -1 to mean all ports (i.e., port range 0-65535). For ICMP, you must also specify the ICMP type and code. You can use -1 for the type or code to mean all types or all codes.

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

Important

For EC2 security groups: You can have up to 100 rules per group.

For VPC security groups: You can have up to 50 rules total per group (covering both ingress and egress).

The short version of this command is **ec2auth**.

Syntax

```
ec2-authorize group [--egress] [-P protocol] (-p port_range | -t icmp_type_code)
[-u source_or_dest_group_owner ...] [-o source_or_dest_group ...] [-s
source_or_dest_cidr ...]
```

Options

Name	Description	Required
group	For EC2 groups: Name or ID of the security group to modify. For VPC groups: ID of the security group to modify (e.g., sg-1a2b3c4d). The group must belong to your AWS account. Type: String Default: None Example: websrv	Yes
`--egress`	Optional flag applicable only to VPC security groups. The flag designates the rule as an egress rule (i.e., controls traffic leaving the VPC security group). Default: If this is not specified, the rule applies to ingress traffic for the specified security group.	No
`-P, --protocol` *protocol*	IP protocol name or number (go to Protocol Numbers). EC2 security groups can have rules only for TCP, UDP, and ICMP, whereas VPC security groups can have rules assigned to any protocol number. When you call `ec2-describe-group`, the protocol value returned is the number. Exception: For TCP, UDP, and ICMP, the value returned is the name (e.g., `tcp`, `udp`, or `icmp`). Type: String Valid Values for EC2 security groups: `tcp` | `udp` | `icmp` or the corresponding protocol number (`6` | `17` | `1`). Default for EC2 groups: Defaults to TCP if source CIDR is specified (or implied by default), or all three protocols (TCP, UDP, and ICMP) if source group is specified (to ensure backwards compatibility). Valid Values for VPC groups: `tcp` | `udp` | `icmp` or any protocol number (go to Protocol Numbers). Use `all` to specify all protocols. Condition: Required for VPC security groups. Example: -P udp	Conditional
`-p` *port_range*	For TCP or UDP, this specifies the range of ports to allow. Type: String Default: None Valid Values: A single integer or a range (min-max). You can specify -1 to mean all ports (i.e., port range 0-65535). Condition: Required if specifying `tcp` or `udp` (or the equivalent number) for the protocol. Example: -p 80-84	Conditional

Name	Description	Required
`-t` *icmp_type_code*	For ICMP, this specifies the ICMP type and code. This must be specified in the format `type:code` where both are integers. You can use -1 for the type or code to mean all types or all codes. Type: String Default: None Condition: Required if specifying `icmp` (or the equivalent number) for the protocol. Example: -t -1:-1	Conditional
`-u`, *source_or_dest_group_owner*	AWS account ID that owns the source security group. If the group is in your own account, set this to your own AWS account ID. Cannot be used when specifying a CIDR IP address. Type: String Default: None Condition: For EC2 security groups only. Required when adding a rule that gives access to one or more source security groups. Example: -u 111122223333	Conditional
`-o` *source_or_dest_group*	The source security group (for ingress rules), or destination security group (for egress rules). When adding a rule for a VPC security group, you must specify the group's ID (e.g., sg-9d4e5f6g) instead of its name. Cannot be used when specifying a CIDR IP address with the -s option. Type: String Default: None Condition: Required if giving access to one or more source or destination security groups. Example: -o headoffice	Conditional
`-s, --cidr` *source_or_dest_cidr*	CIDR range. Cannot be used when specifying a source or destination security group with the -o option. Type: String Default: 0.0.0.0/0 Constraints: Valid CIDR IP address range. Condition: Required if giving access to one or more IP address ranges. Example: -s 205.192.8.45/24	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("GROUP", "PERMISSION")
- Group name for EC2 security groups; group ID for VPC security groups
- Type of rule; currently, only ALLOW rules are supported
- Protocol to allow
- Start of port range
- End of port range
- Source (for ingress rules) or destination (for egress rules)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

EC2 security groups: This example grants TCP port 80 access from the 192.0.2.0/24 address range to the EC2 security group called *websrv*.

```
PROMPT> ec2-authorize websrv -P tcp -p 80 -s 192.0.2.0/24
GROUP websrv
PERMISSION   websrv  ALLOWS  tcp  80  80  FROM  CIDR  192.0.2.0/24   ingress
```

Example Request

EC2 security groups: This example grants TCP port 80 access from the EC2 source group called *OtherAccountGroup* (in AWS account 111122223333) to your EC2 security group called *websrv*.

```
PROMPT> ec2-authorize websrv -P tcp -p 80 -u 111122223333 -o OtherAccountGroup
GROUP websrv
PERMISSION   websrv  ALLOWS  tcp  80  80  FROM  USER  111122223333   GRPNAME
OtherAccountGroup   ingress
```

Example Request

VPC security groups: This example grants TCP port 80 access from the 192.0.2.0/24 address range to the VPC security group with ID sg-eea7b782.

```
PROMPT> ec2-authorize sg-eea7b782 -P tcp -p 80 -s 192.0.2.0/24
GROUP   sg-eea7b782
PERMISSION    ALLOWS  tcp  80  80  FROM  CIDR  192.0.2.0/24  ingress
```

Example Request

VPC security groups: This example grants egress access from the VPC group sg-eea7b782 to the VPC destination group sg-80aebeec on TCP destination port 1433.

```
PROMPT> ec2-authorize --egress sg-eea7b782 -P tcp -p 1433 -o sg-80aebeec
GROUP sg-eea7b782
PERMISSION     ALLOWS  tcp  1433  1433  TO  USER    ID  sg-80aebeec   egress
```

Related Operations

- ec2-create-group (p. 70)
- ec2-describe-group (p. 203)
- ec2-revoke (p. 453)
- ec2-delete-group (p. 133)

ec2-bundle-instance

Description

Bundles an Amazon S3-backed Windows instance.

Note

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

This procedure is not applicable for Linux and UNIX instances or Windows instances that use Amazon EBS volumes as their root devices.

The short version of this command is **ec2bundle**.

Syntax

```
ec2-bundle-instance instance_id -b bucket -p prefix -o access_key_id {-c policy
| -s policy_signature |-w owner_secret_access_key} [-x hours] [--location
location] [-B]
```

Options

Name	Description	Required
instance_id	The ID of the instance to bundle. Type: String Default: None Example: i-5e73d509	Yes
-b, --bucket *bucket*	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: String Default: None Example: -b myawsbucket	Yes
-p, --prefix *prefix*	Specifies the prefix for the image component names being stored in Amazon S3. Type: String Default: None Example: -p winami	Yes
-o, --owner-akid *access_key_id*	The Access Key ID of the owner of the Amazon S3 bucket. Type: String Default: None Example: -o AKIAIOSFODNN7EXAMPLE	Yes

Name	Description	Required
`-c`, `--policy` *policy*	A Base64-encoded Amazon S3 upload policy that gives Amazon EC2 permission to upload items into Amazon S3 on the user's behalf. If you provide this parameter, you must also provide either a policy signature, or your Secret Access Key, so we can create a policy signature for you (the Secret Access Key is not passed to EC2). If you do not provide this parameter, the *--owner-sak* is required, and we generate an upload policy and policy signature for you automatically. For more information about upload policies and how to sign them, go to the sections about policy construction and signatures in the Amazon Simple Storage Service Developer Guide. Type: String Default: None Example: -c upload-policy	Conditional
`-s`, `--policy-signature` *policy_signature*	The Base-64 encoded signature for the S3 upload policy. If you provide the *--policy* parameter but not *--policy-signature*, the *--owner-sak* parameter is required, and we use it to automatically sign the policy. Type: String Default: None Example: -s upload-policy	Conditional
`-w`, `--owner-sak` *owner_secret_access_key*	The AWS Secret Access Key for the owner of the Amazon S3 bucket specified in the *-b* parameter. This parameter is required in either of these cases: • If you don't provide the *--policy* parameter • If you provide the *--policy* parameter, but don't provide the *--policy-signature* parameter The command line tools client uses the Secret Access Key to sign a policy for you, but does not send the Secret Access Key to EC2. Type: String Default: None Example: -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY	Conditional
`-x`, `--expires` *hours*	The validity period, in hours, for a generated upload policy. Type: String Default: 24 Example:-x 8	No

Name	Description	Required
`--location` *bucket_location*	Specifies the location of the destination Amazon S3 bucket. Type: String Default: None Example: --location my-bucket-location	No
`-B`, `--no-bucket-setup`	Specifies that no Amazon S3 bucket should be created if one doesn't already exist, and that no attempt should be made to fix incorrect permissions. Type: Boolean Default: False Example: -B	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- BUNDLE identifier
- ID of the bundle
- ID of the instance
- Bucket name
- Bundle prefix
- Bundle start time
- Bundle update time
- State

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example bundles an instance.

```
PROMPT> ec2-bundle-instance  i-12345678 -b myawsbucket -p winami -o AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
BUNDLE bun-c1a540a8 i-12345678 myawsbucket winami   2008-09-15T17:15:20+0000 pending
```

Related Operations

- ec2-cancel-bundle-task (p. 47)
- ec2-describe-bundle-tasks (p. 185)
- ec2-create-image (p. 74)

ec2-cancel-bundle-task

Description

Cancels an Amazon EC2 bundling operation.

The short version of this command is **ec2cbun**.

Syntax

```
ec2-cancel-bundle-task bundle_id
```

Options

Name	Description	Required
bundle_id	The ID of the bundle task to cancel. Type: String Default: None Example: bun-cla432a3	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- BUNDLE identifier
- ID of the bundle
- ID of the instance
- Bucket name
- Cancel status
- Prefix
- Start time
- Update time
- Status (cancelling)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example cancels the `bun-cla322b9` bundle task.

```
PROMPT> ec2-cancel-bundle-task bun-cla322b9
BUNDLE bun-cla322b9 i-2674d22r myawsbucket winami 2008-09-15T17:15:20+0000 2008-
09-15T17:15:20+0000  cancelling
```

Related Operations

- ec2-bundle-instance (p. 43)
- ec2-describe-bundle-tasks (p. 185)

ec2-cancel-conversion-task

Description

Cancels an active conversion task. The task can be the import of an instance or volume. The command removes all artifacts of the conversion, including a partially uploaded volume or instance. If the conversion is complete or is in the process of transferring the final disk image, the command fails and returns an exception.

For more information, go to Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2 in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2cct**.

Syntax

```
ec2-cancel-conversion-task task_id
```

Options

Name	Description	Required
task_id	The conversion task ID of the task to cancel. Type: String Default: None Example: import-i-fh95npoc	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the following information:

- The status (success or failure) of the deletion.

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example deletes the conversion identified by task ID import-i-fh95npoc.

```
PROMPT> ec2-cancel-conversion-task import-i-fh95npoc
CONVERSION-TASK import-i-fh95npoc
```

If the task fails, you receive the following error:

```
Client.DeleteConversionTask Error: Failed to delete conversion task import-i-
fh95npoc
```

Related Operations

- ec2-import-instance (p. 361)
- ec2-import-volume (p. 370)
- ec2-describe-conversion-tasks (p. 189)
- ec2-resume-import (p. 449)
- ec2-delete-disk-image (p. 130)

ec2-cancel-export-task

Description

Cancels an active export task. The command removes all artifacts of the export, including any partially created Amazon S3 objects. If the export task is complete or is in the process of transferring the final disk image, the command fails and returns an error.

The short version of this command is **ec2cxt**.

Syntax

```
ec2-cancel-export-task task_id
```

Options

Name	Description	Required
task_id	The ID of the export task to be canceled. This is the ID returned by `ec2-create-instance-export-task`. Type: String Default: None Example: export-i-fgelt0i7	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the following information:

- The status (success or failure) of the cancellation.

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example deletes the export identified by task ID export-i-fgelt0i7.

```
PROMPT> ec2-cancel-export-task export-i-fgelt0i7
EXPORT-TASK    export-i-fgelt0i7
```

Related Operations

- ec2-create-instance-export-task (p. 61)
- ec2-describe-export-tasks (p. 200)

ec2-cancel-spot-instance-requests

Description

Cancels one or more Spot Instance requests. Spot Instances are instances that Amazon EC2 starts on your behalf when the maximum price that you specify exceeds the current Spot Price. Amazon EC2 periodically sets the Spot Price based on available Spot Instance capacity and current Spot Instance requests. For more information about Spot Instances, go to Spot Instances in the *Amazon Elastic Compute Cloud User Guide*.

Important

Canceling a Spot Instance request does not terminate running Spot Instances associated with the request.

The short version of this command is **ec2csir**.

Syntax

```
ec2-cancel-spot-instance-requests request_id [request_id...]
```

Options

Name	Description	Required
request_id	The Spot Instance request ID. Type: String Default: None Example: sir-8456a32b	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- SPOTINSTANCEREQUEST identifier
- Spot Instance request ID
- State

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example cancels a Spot Instance request.

```
PROMPT> ec2-cancel-spot-instance-requests sir-98c16c03 sir-c1920c03
SPOTINSTANCEREQUEST     sir-98c16c03    cancelled
SPOTINSTANCEREQUEST     sir-c1920c03    cancelled
```

Related Operations

- ec2-describe-spot-instance-requests (p. 289)
- ec2-request-spot-instances (p. 430)
- ec2-describe-spot-price-history (p. 295)

ec2-confirm-product-instance

Description

Verifies whether a product code is associated with an instance. This can only be executed by the owner of the product code and is useful when a product code owner wants to verify whether an EC2 user's instance is eligible for support.

The short version of this command is **ec2cpi**.

Syntax

```
ec2-confirm-product-instance product_code -i instance_id
```

Options

Name	Description	Required
product_code	The product code to confirm. This must be an Amazon DevPay product code that you own. Type: String Default: None Example: 774F4FF8	Yes
`-i` *instance_id*	The instance to confirm. Type: String Default: None Example: -i i-10a64379	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Product code
- Instance ID
- Boolean value indicating if the product code is attached to the instance
- The instance owner's account ID (if the product code is attached)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

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

```
PROMPT> ec2-confirm-product-instance 774F4FF8 -i i-10a64379
774F4FF8   i-10a64379   true  111122223333
```

Related Operations

- ec2-describe-instances (p. 222)
- ec2-run-instances (p. 458)

ec2-create-instance-export-task

Description

Exports a running or stopped instance to an Amazon S3 bucket. For information about the supported operating systems, image formats, and known limitations for the types of instances you can export, see Exporting EC2 Instances in the Amazon Elastic Compute Cloud User Guide.

The short version of this command is **ec2addixt**.

Syntax

```
ec2-create-instance-export-task instance_id -e target_environment -f
disk_image_format [-c container_format] -b S3_bucket [-p S3_prefix] [-d
description]
```

Options

Name	Description	Required
instance_id	The ID of the instance to export.	Yes
-e, --target-environment *target_environment*	VMware target supports VMware 4 and 5. Citrix target supports Xen 6. Type: String Valid values: VMware | Citrix	Yes
-f, --disk-image-format *disk_image_format*	The disk image file format used to represent the exported disk. Type: String Valid values: VMDK| VHD Default: –e = VMware, then –f = VMDK; otherwise VHD	No
-c, --container-format *container_format*	The container format used to combine disk images with metadata (such as OVF). If absent, only the disk image will be exported. Type: String Valid values: OVA Default: if –e = VMware, then -c = OVA, otherwise empty	No
-b, --bucket *S3_bucket*	Name of the destination Amazon S3 bucket where the file will be exported. The destination bucket must grant WRITE and READ_ACL permissions to the vm-import-export@amazon.com AWS account. Type: String	Yes

Name	Description	Required
`-p, --prefix` *S3_prefix*	Prefix for the S3 key (object name) used for the exported file. Maximum length is 1000 bytes of UTF-8 character encoding. The final key is composed from this prefix (if supplied), the export-task-id, and other relevant parameters. Type: String Example: `my-export-, incoming/vm-export/`	No
`-d, --description` *description*	A free-form comment that is returned verbatim during subsequent calls to `ec2-describe-export-tasks`. Maximum length is 255 bytes. Type: String	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.

Option	Description
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- The export task ID.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a task to export an instance.

```
PROMPT> ec2-create-instance-export-task i-38e485d8 -e vmware -f vmdk -c ova -b
 myexportbucket
EXPORTTASK    export-i-fgelt0i7    active    i-38e485d8    vmware    vmdk
myexportbucket    export-i-fgelt0i7.vmdk
```

Related Operations

- ec2-cancel-export-task (p. 53)
- ec2-describe-export-tasks (p. 200)

ec2-create-customer-gateway

Description

Provides information to AWS about your VPN customer gateway device. The customer gateway is the appliance at your end of the VPN connection (compared to the virtual private gateway, which is the device at the AWS side of the VPN connection)

You must provide the Internet-routable IP address of the customer gateway's external interface. The IP address must be static and can't be behind a device performing network address translation (NAT).

You must also provide the device's Border Gateway Protocol (BGP) Autonomous System Number (ASN). You can use an existing ASN assigned to your network. If you don't have an ASN already, you can use a private ASN (in the 64512 - 65534 range).

Note

Amazon EC2 supports all 2-byte ASN numbers in the range of 1 - 65534, with the exception of 7224, which is reserved in US East, and 9059, which is reserved in EU West.

For more information about ASNs, go to the Wikipedia article.

For more information about Amazon Virtual Private Cloud and VPN customer gateways, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2addcgw**.

Syntax

```
ec2-create-customer-gateway -t type -i ip_address -b bgp_asn
```

Options

Name	Description	Required
`-t type`	The type of VPN connection this customer gateway supports. Type: String Default: None Valid Values: `ipsec.1` Example: -t ipsec.1	Yes
`-i ip_address`	The Internet-routable IP address for the customer gateway's outside interface. The address must be static. Type: String Default: None Example: -i 12.1.2.3	Yes

Name	Description	Required
`-b` *bgp_asn*	The customer gateway's Border Gateway Protocol (BGP) Autonomous System Number (ASN). Type: Integer Default: None Example: -b 65534	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.

Option	Description
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("CUSTOMERGATEWAY")
- Customer gateway ID, which uniquely identifies the customer gateway
- Current state of the customer gateway (pending, available, deleting, deleted)
- Type of VPN connection the customer gateway supports
- The Internet-routable IP address for the customer gateway's outside interface
- The customer gateway's BGP ASN

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example passes information to AWS about the customer gateway with IP address 12.1.2.3 and ASN 65534.

```
PROMPT> ec2-create-customer-gateway -t ipsec.1 -i 12.1.2.3 -b 65534
CUSTOMERGATEWAY  cgw-b4dc3961  pending ipsec.1  12.1.2.3   65534
```

Related Operations

- ec2-describe-customer-gateways (p. 192)
- ec2-delete-customer-gateway (p. 126)

ec2-create-dhcp-options

Description

Creates a set of DHCP options for your VPC. After creating the new set, you must then associate it with the VPC, causing all existing and new instances that you launch in the VPC to use the new set of DHCP options. The following table lists the individual DHCP options you can specify. For more information about the options, go to RFC 2132.

DHCP Option Name	Description
domain-name	A domain name of your choice (e.g., example.com).
domain-name-servers	The IP address of a domain name server. You can specify up to four addresses.
ntp-servers	The IP address of a Network Time Protocol (NTP) server. You can specify up to four addresses.
netbios-name-servers	The IP address of a NetBIOS name server. You can specify up to four addresses.
netbios-node-type	Value indicating the NetBIOS node type (1, 2, 4, or 8). For more information about the values, go to RFC 2132. We recommend you only use 2 at this time (broadcast and multicast are currently not supported).

Important

Your VPC automatically starts out with a set of DHCP options that includes only a DNS server that we provide (AmazonProvidedDNS). If you create a new set of options, and if your VPC has an Internet gateway, make sure to set the `domain-name-servers` option either to AmazonProvidedDNS or to a domain name server of your choice.

For more information about Amazon Virtual Private Cloud and DHCP options, go to Using DHCP Options in Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2adddopt**.

Syntax

```
ec2-create-dhcp-options name=value[,value...] [ name=value[,value...] ... ]
```

Options

Name	Description	Required
name=value,value	The DHCP option (including the option's name and its value). You can specify more than one option in the request, and more than one value per option. If you're using the command line tools on a Windows system, you might need to use quotation marks (i.e., "name=value,value"). Type: String Default: None Example: domain-name-servers=10.2.5.1,10.2.5.2	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.

Option	Description
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("DHCPOPTIONS")
- The DHCP options ID, which uniquely identifies this set of options
- Output type identifier ("OPTION")
- Each option and corresponding value in the set of options

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a new set of DHCP options with a domain name mydomain.com and two DNS servers (10.2.5.1 and 10.2.5.2).

```
PROMPT> ec2-create-dhcp-options domain-name=mydomain.com domain-name-serv
ers=10.2.5.1,10.2.5.2
DHCPOPTIONS  dopt-7a8b9c2d
OPTION domain-name  mydomain.com
OPTION domain-name-servers  10.2.5.1,10.2.5.2
```

Related Operations

- ec2-associate-dhcp-options (p. 19)
- ec2-describe-dhcp-options (p. 196)
- ec2-delete-dhcp-options (p. 128)

ec2-create-group

Description

Creates a new security group. You can create either an EC2 security group (which works only with EC2), or a VPC security group (which works only with Amazon Virtual Private Cloud). The two types of groups have different capabilities. For information about VPC security groups and how the two types of groups differ, go to Security Groups in the *Amazon Virtual Private Cloud User Guide*. For information about EC2 security groups, go to Using Security Groups in the *Amazon Elastic Compute Cloud User Guide*.

When you create a security group, you give it a friendly name of your choice. You can have an EC2 security group with the same name as a VPC security group (each group has a unique security group ID separate from the name). Two EC2 groups can't have the same name, and two VPC groups can't have the same name.

If you don't specify a security group when you launch an instance, the instance is launched into the default security group. This group (and only this group) includes a default rule that gives the instances in the group unrestricted network access to each other. You have a default EC2 security group for instances you launch with EC2 (i.e., outside a VPC), and a default VPC security group for instances you launch in your VPC.

You can add or remove rules from your security groups (i.e., authorize or revoke permissions) using `ec2-authorize`, and `ec2-revoke` commands.

For more information about EC2 security groups, go to Security Groups in the *Amazon Elastic Compute Cloud User Guide*.

Important

For EC2 security groups: You can have up to 500 groups.
For VPC security groups: You can have up to 50 groups per VPC.

The short version of this command is **ec2addgrp**.

Syntax

```
ec2-create-group group_name -d description [-c vpc_id]
```

Options

Name	Description	Required
group_name	Name of the security group. Type: String Default: None Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores. Example: websrv	Yes

Name	Description	Required
`-d, --description` *description*	Description of the group. This is informational only. Type: String Default: None Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores. Example: -d "Web servers"	Yes
`-c, --vpc` *vpc_id*	ID of the VPC. Type: String Default: None Condition: Required for VPC security groups Example: -c vpc-1a2b3c4d	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.

Option	Description
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- "GROUP" identifier
- AWS-assigned ID for the group
- Group name
- Group description

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates the `websrv` security group.

```
PROMPT> ec2-create-group websrv -d 'Web Servers'
GROUP  sg-4def22a5    websrv    Web Servers
```

Example Request

This example creates the `MyVPCGroup` security group in the VPC with ID vpc-3325caf2.

```
PROMPT> ec2-create-group MyVPCGroup -d 'Group in my VPC' -c vpc-3325caf2
GROUP  sg-0a42d66a    MyVPCGroup    Group in my VPC
```

Related Operations

- ec2-run-instances (p. 458)
- ec2-describe-group (p. 203)
- ec2-authorize (p. 37)

- ec2-revoke (p. 453)
- ec2-delete-group (p. 133)

ec2-create-image

Description

Creates an AMI that uses an Amazon EBS root device from a "running" or "stopped" instance. For more information about Amazon EBS-backed AMIs, go to Using Amazon EBS-Backed AMIs and Instances.

Note

If you customized your instance with instance store volumes or EBS volumes in addition to the root device, the new AMI contains block device mapping information for those volumes. When you then launch an instance from your new AMI, the instance automatically launches with the additional volumes.

The short version of this command is **ec2cim**.

Syntax

```
ec2-create-image instance_id --name name [--description description]
[--no-reboot]
```

Options

Name	Description	Required
instance_id	The ID of the instance. Type: String Default: None Example: i-10a64379	Yes
-n, --name *name*	A name for the new image you're creating. Type: String Default: None Constraints: 3-128 alphanumeric characters, parenthesis (()), commas (,), slashes (/), dashes (-), or underscores(_). Allows spaces if the name is enclosed in quotation marks. Example: -n "Standard Web Server"	Yes
-d, --description *description*	A description of the new image. Type: String Default: None Constraints: Up to 255 characters Example: -d Fedora_v11	No

Name	Description	Required
`--no-reboot`	By default this property is set to false, which means Amazon EC2 attempts to cleanly shut down the instance before image creation and reboots the instance afterwards. When set to true, Amazon EC2 does not shut down the instance before creating the image. When this option is used, file system integrity on the created image cannot be guaranteed. Type: Boolean Default: False Example: --no-reboot	No

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.

Option	Description
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- IMAGE identifier
- Unique ID of the newly registered machine image

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates an AMI from the i-10a64379 instance.

```
PROMPT> ec2-create-image i-10a64379 --name "Standard Web Server" --description
 "Standard web server AMI"
IMAGE ami-4fa54026
```

Related Operations

- ec2-run-instances (p. 458)
- ec2-describe-instances (p. 222)
- ec2-terminate-instances (p. 473)

ec2-create-internet-gateway

Description

Creates a new Internet gateway for use with a VPC. After creating the Internet gateway, you then attach it to a VPC using `ec2-attach-internet-gateway`. For more information about your VPC and Internet gateway, go to the Amazon Virtual Private Cloud User Guide.

The short version of this command is **ec2addigw**.

Syntax

```
ec2-create-internet-gateway
```

Options

This command does not have any options.

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.

Option	Description
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("INTERNETGATEWAY")
- ID of the Internet gateway

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates an Internet gateway.

```
PROMPT> ec2-create-internet-gateway
INTERNETGATEWAY igw-c0a643a9
```

Related Operations

- ec2-delete-internet-gateway (p. 136)
- ec2-attach-internet-gateway (p. 25)
- ec2-detach-internet-gateway (p. 334)
- ec2-describe-internet-gateways (p. 236)

ec2-create-keypair

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.

Tip

The key pair returned to you works only in the Region you're using when you create the key pair. If you'd like to create a key pair that works in all Regions, see ec2-import-keypair (p. 367).

The short version of this command is **ec2addkey**.

Syntax

```
ec2-create-keypair key
```

Options

Name	Description	Required
key	A unique name for the key pair. Type: String Default: None Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores. Example: mysecretkey	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- KEYPAIR identifier
- Key pair name
- Private key fingerprint
- Private key. This value is displayed on a new line

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a key pair named gsg-keypair.

```
PROMPT> ec2-create-keypair gsg-keypair
KEYPAIR
gsg-keypair1f:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
---- BEGIN RSA PRIVATE KEY ----
MIICiTCCAfICCQD6m7oRw0uXOjANBgkqhkiG9w0BAQUFADCBiDELMAkGA1UEBhMC
VVMxCzAJBgNVBAgTAldBMRAwDgYDVQQHEwdTZWF0dGxlMQ8wDQYDVQQKEwZBbWF6
b24xFDASBgNVBAsTC0lBTSBDb25zb2xlMRIwEAYDVQQDEwlUZXN0Q2lsYWMxHzAd
BgkqhkiG9w0BCQEWEG5vb25lQGFtYXpvbi5jb20wHhcNMTEwNDI1MjA0NTIxWhcN
MTIwNDI0MjA0NTIxWjCBiDELMAkGA1UEBhMCVVMxCzAJBgNVBAgTAldBMRAwDgYD
VQQHEwdTZWF0dGxlMQ8wDQYDVQQKEwZBbWF6b24xFDASBgNVBAsTC0lBTSBDb25z
b2xlMRIwEAYDVQQDEwlUZXN0Q2lsYWMxHzAdBgkqhkiG9w0BCQEWEG5vb25lQGFt
YXpvbi5jb20wgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMaK0dn+a4GmWIWJ
21uUSfwfEvySWtC2XADZ4nB+BLYgVIk60CpiwsZ3G93vUEIO3IyNoH/f0wYK8m9T
rDHudUZg3qX4waLG5M43q7Wgc/MbQITxOUSQv7c7ugFFDzQGBzZswY6786m86gpE
Ibb3OhjZnzcvQAaRHhdlQWIMm2nrAgMBAAEwDQYJKoZIhvcNAQEFBQADgYEAtCu4
nUhVVxYUntneD9+h8Mg9q6q+auNKyExzyLwaxlAoo7TJHidbtS4J5iNmZgXL0Fkb
FFBjvSfpJIlJ00zbhNYS5f6GuoEDmFJl0ZxBHjJnyp378OD8uTs7fLvjx79LjSTb
NYiytVbZPQUQ5Yaxu2jXnimvw3rrszlaEXAMPLE=
-----END RSA PRIVATE KEY-----
```

Related Operations

- ec2-run-instances (p. 458)
- ec2-describe-keypairs (p. 240)
- ec2-delete-keypair (p. 139)

ec2-create-network-acl

Description

Creates a new network ACL in a VPC. Network ACLs provide an optional layer of security (on top of security groups) for the instances in your VPC. For more information about network ACLs, go to Network ACLs in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2addnacl**.

Syntax

```
ec2-create-network-acl vpc_id
```

Options

Name	Description	Required
vpc_id	The ID of the VPC where the network ACL will be created. Type: String Default: None Example: vpc-9ea045f7	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("NETWORKACL")
- The ACL ID
- The VPC ID the route table has been created in
- ENTRY elements created by default

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a new network ACL in the VPC with ID vpc-11ad4878. Notice that the response includes a default entry for egress, and another for ingress, each with a very high rule number (32767). These are the last entries that Amazon VPC processes to decide whether traffic is allowed into our out of an associated subnet. If the traffic doesn't match any rules with a lower rule number, then these default entries ultimately deny the traffic. The -1 means all protocols and ports.

```
PROMPT> ec2-create-network-acl vpc-11ad4878
NETWORKACL acl-5fb85d36   vpc-11ad4878
```

```
ENTRY  egress   32767 deny 0.0.0.0/0 all
ENTRY  ingress  32767 deny 0.0.0.0/0 all
```

Related Operations

- ec2-delete-network-acl (p. 141)
- ec2-describe-network-acls (p. 243)
- ec2-replace-network-acl-association (p. 413)

ec2-create-network-acl-entry

Description

Creates an entry (i.e., rule) in a network ACL with a rule number you specify. Each network ACL has a set of numbered ingress rules and a separate set of numbered egress rules. When determining whether a packet should be allowed in or out of a subnet, Amazon VPC processes the entries in the ACL according to the rule numbers, in ascending order. Each network ACL has a set of ingress rules and a separate set of egress rules.

Important

We recommend that you leave room between the rule numbers (e.g., 100, 110, 120, etc.), and not number them one right after the other (e.g., 101, 102, 103, etc.). This allows you to easily add a new rule between existing ones without having to renumber the rules.

After you add an entry, you can't modify it; you must either replace it or create a new entry and delete the old one.

For more information about network ACLs, go to Network ACLs in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2addnae**.

Syntax

```
ec2-create-network-acl-entry acl_id -n rule_number [--egress] -P protocol -r
cidr [-p port_range] [-t icmp_type_code] { --allow | --deny }
```

Options

Name	Description	Required
acl_id	ID of the ACL where the entry will be created. Type: String Default: None Example: acl-5fb85d36	Yes
-n, --rule-number *rule_number*	Rule number to assign to the entry (e.g., 100). ACL entries are processed in ascending order by rule number. Type: Number Default: None Constraints: Positive integer from 1 to 32766 Example: -n 100	Yes
--egress	Optional flag to designate the rule be applied to traffic leaving the subnet. Default: If not specified, rule applies to ingress traffic into the subnet.	No

Name	Description	Required
`-P, --protocol` *protocol*	IP protocol. You can specify `all` or `-1` to mean all protocols. Type: String Valid Values: `all` | `-1` | `tcp` | `udp` | `icmp` or any protocol number (for a list, go to Protocol Numbers). Example: -P 6	Yes
`-r, --cidr` *cidr*	The CIDR range to allow or deny, in CIDR notation. Type: String Default: None Example: -r 172.16.0.0/24	Yes
`-p, --port-range` *port_range*	For the TCP or UDP protocols, this specifies the range of ports to allow. Type: String Default: None Valid Values: A single integer or a range (min-max). You can specify -1 to mean all ports (i.e. port range 0-65535). Condition: Required if specifying `tcp` or `udp` (or the equivalent number) for the protocol. Example: -p 80-84	Conditional
`-t, --icmp-type-code` *icmp_type_code*	For the ICMP protocol, this specifies the ICMP type and code using format `type:code`, where both are integers. You can use -1 for the type or code to mean all types or all codes Type: String Default: None Condition: Required if specifying `icmp` (or the equivalent number) for the protocol. Example: -t -1:-1	Conditional
`--allow`	Specifies that any traffic matching the rule is allowed. Condition: Either --allow or --deny must be specified, but not both.	Conditional
`--deny`	Specifies that any traffic matching the rule is denied. Condition: Either --allow or --deny must be specified, but not both.	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates an entry with rule number 100 in the network ACL with ID acl-2cb85d45. The rule allows ingress traffic from anywhere (0.0.0.0/0) on UDP port 53 into the subnet.

```
PROMPT> ec2-create-network-acl-entry acl-2cb85d45 -n 100 -r 0.0.0.0/0 -P udp -
p 53 --allow
ENTRY   ingress 100     allow   0.0.0.0/0       udp                     53
  53
```

Related Operations

- ec2-delete-network-acl-entry (p. 143)
- ec2-replace-network-acl-entry (p. 416)
- ec2-describe-network-acls (p. 243)

ec2-create-network-interface

Description

Creates a network interface in the subnet that you specify.

The short version of this command is **ec2addnic**.

Syntax

```
ec2-create-network-interface -d, --description DESCRIPTION [--private-ip-address
IP_ADDRESS] [-g, --group GROUP] SUBNET
```

Options

Name	Description	Required
-d, --description DESCRIPTION	Set the description of the network interface. Type: String Default: None Example: -d "My ENI"	No
--private-ip-address IP_ADDRESS	Specifies the private IP address of the network interface. If an IP address is not specified, one will be auto-assigned to the interface. Type: String Default: None Example: --private-ip-address 10.0.2.17	No
-g, --group GROUP	Adds a security group to the network interface. It can be used multiple times to add multiple groups. Type: String Default: None. If no security group is specified, the interface will become a member of the default security group. Example: -g sg-bba1bcd7 –g sg-6d495601	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the ENI ID for the network interface that was created, along with the subnet ID, VPC ID, Availability Zone, and security group membership.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a network interface address in the specified subnet.

```
PROMPT> ec2-create-network-interface -d "My ENI" -g sg-bba1bcd7 --private-ip-
address 10.0.2.17 subnet-fd04ff94
NETWORKINTERFACE   eni-3b9f6552   My ENI subnet-fd04ff94 vpc-e604ff8f   us-east-
1b   089818748305   false   pending 02:1a:80:41:52:9c   10.0.2.17   true   GROUP
   sg-bba1bcd7   default
```

Related Operations

- ec2-delete-network-interface (p. 146)
- ec2-describe-network-interfaces (p. 248)
- ec2-describe-network-interface-attribute (p. 254)
- ec2-attach-network-interface (p. 28)
- ec2-detach-network-interface (p. 337)
- ec2-modify-network-interface-attribute (p. 387)
- ec2-reset-network-interface-attribute (p. 444)

ec2-create-placement-group

Description

Creates a placement group that you launch cluster instances into. You must give the group a name unique within the scope of your account. For more information about placement groups and cluster instances, go to Using Cluster Instances in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2addpgrp**.

Syntax

```
ec2-create-placement-group placement-group -s strategy
```

Options

Name	Description	Required
placement-group	A name for the placement group. Type: String Default: None Example: XYZ-cluster	Yes
-s strategy	The placement strategy. Type: String Valid Values: `cluster` Default: cluster Example: -s cluster	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- PLACEMENTGROUP identifier
- Placement group name
- Placement group strategy

Examples

Example Request

This example creates the XYZ-cluster group.

```
PROMPT> ec2-create-placement-group XYZ-cluster -s cluster
PLACEMENTGROUP  XYZ-cluster  cluster
```

Related Operations

- ec2-delete-placement-group (p. 148)
- ec2-describe-placement-groups (p. 257)

ec2-create-route

Description

Creates a new route in a route table within a VPC. The route's target can be either a gateway attached to the VPC or a NAT instance in the VPC.

When determining how to route traffic, we use the route with the most specific match. For example, let's say the traffic is destined for 192.0.2.3, and the route table includes the following two routes:

- 192.0.2.0/24 (goes to some target A)
- 192.0.2.0/28 (goes to some target B)

Both routes apply to the traffic destined for 192.0.2.3. However, the second route in the list covers a smaller number of IP addresses and is therefore more specific, so we use that route to determine where to target the traffic.

For more information about route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2addrt**.

Syntax

```
ec2-create-route route_table_id -r cidr {-g gateway_id | -i instance_id | -n,
--network-interface NETWORKINTERFACE}
```

Options

Name	Description	Required
route_table_id	The ID of the route table where the route will be added. Type: String Default: None Example: rtb-5da34634	Yes
-r, --cidr *cidr*	The CIDR address block used for the destination match. Routing decisions are based on the most specific match. Type: String Default: None Example: -r 0.0.0.0/0	Yes
-g, --gateway *gateway_id*	The ID of a gateway in your VPC. Type: String Default: None Condition: You must provide one of the following: a gateway ID, instance ID, or a network interface ID. Example: -g igw-68a34601	Conditional

Name	Description	Required
`-i, --instance` *instance_id*	The ID of a NAT instance in your VPC. Type: String Default: None Condition: You must provide one of the following: a gateway ID, instance ID, or a network interface ID. Example: -i i-a7c871e3	Conditional
`-n, --network-interface` *NETWORKINTERFACE*	The network interface associated with the route. Type: String Default: None Condition: You must provide one of the following: a gateway ID, instance ID, or a network interface. Example: -n eni-5b729933	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45

Option	Description
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
-H, --headers	Displays column headers in the output.
--show-empty-fields	Shows empty columns as (nil).
--hide-tags	Do not display tags for tagged resources.
--debug	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
-?, --help, -h	Displays Help.
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a route in the route table with ID rtb-e4ad488d. The route matches all traffic (0.0.0.0/0) and routes it to the Internet gateway with ID igw-eaad4883.

```
PROMPT> ec2-create-route rtb-e4ad488d -r 0.0.0.0/0 -g igw-eaad4883
ROUTE   igw-eaad4883    0.0.0.0/0
```

Related Operations

- ec2-delete-route (p. 150)
- ec2-describe-route-tables (p. 274)
- ec2-replace-route (p. 420)

ec2-create-route-table

Description

Creates a new route table within a VPC. After you create a new route table, you can add routes and associate the table with a subnet. For more information about route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2addrtb**.

Syntax

```
ec2-create-route-table vpc_id
```

Options

Name	Description	Required
vpc_id	The ID of the VPC where the route table will be created. Type: String Default: None Example: vpc-9ea045f7	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ROUTETABLE")
- The route table ID
- The VPC ID
- Information about the local route included in every new route table

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a new route table within the VPC with the ID vpc-9ea045f7.

```
PROMPT> ec2-create-route-table vpc-9ea045f7
ROUTETABLE rtb-6aa34603 vpc-9ea045f7
ROUTE   local     active     172.16.0.0/16
```

Related Operations

- ec2-associate-route-table (p. 22)
- ec2-disassociate-route-table (p. 348)
- ec2-delete-route-table (p. 153)
- ec2-describe-route-tables (p. 274)
- ec2-replace-route-table-association (p. 423)
- ec2-create-route (p. 95)

ec2-create-snapshot

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 BLock Store.

When a snapshot is created, any AWS Marketplace product codes from the volume will be propagated to the snapshot.

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 to unmount the volume.

```
umount -d device_name
```

For example:

```
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.

The short version of this command is **ec2addsnap**.

Syntax

```
ec2-create-snapshot volume_id [-d description]
```

Options

Name	Description	Required
volume_id	The ID of the Amazon EBS volume of which to take a snapshot. Type: String Default: None Example: vol-4d826724	Yes
-d, --description *description*	Description of the Amazon EBS snapshot. Type: String Default: None Constraints: Up to 255 characters Example: -d "Daily backup"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- SNAPSHOT identifier
- ID of the snapshot
- ID of the volume
- Snapshot state (e.g., pending, completed, error)
- Time stamp when snapshot initiated
- ID of the owner
- Size of the volume
- Description

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

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

```
PROMPT> ec2-create-snapshot vol-4d826724 --description "Daily Backup"
SNAPSHOT snap-c070c5a9 vol-9539dcfc pending 2009-09-16T14:31:29+0000
111122223333    1     Daily Backup
```

Related Operations

- ec2-delete-snapshot (p. 155)
- ec2-describe-snapshots (p. 282)

ec2-create-spot-datafeed-subscription

Description

Creates the data feed for Spot Instances, enabling you to view Spot Instance usage logs. You can create one data feed per account. For more information about Spot Instances, go to Spot Instances in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2addsds**.

Syntax

```
ec2-create-spot-datafeed-subscription --bucket bucket [--prefix prefix]
```

Options

Name	Description	Required
`-b, --bucket` *bucket*	The Amazon S3 bucket in which to store the Spot Instance datafeed. Type: String Default: None Constraints: Must be a valid bucket associated with your account. Example: -b myawsbucket	Yes
`-p, --prefix` *bucket*	Prefix that is prepended to datafeed files. Type: String Default: None Example: -p spotdata_	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- SPOTDATAFEEDSUBSCRIPTION identifier
- Owner's AWS account ID
- Bucket name
- Prefix
- State (Active, Inactive)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates the data feed for the account.

```
PROMPT> ec2-create-spot-datafeed-subscription  -b myawsbucket -p spotdata_
SPOTDATAFEEDSUBSCRIPTION 111122223333 myawsbucket     spotdata_    Active
```

Related Operations

- ec2-delete-spot-datafeed-subscription (p. 158)
- ec2-describe-spot-datafeed-subscription (p. 287)

ec2-create-subnet

Description

Creates a subnet in an existing VPC. You can create up to 20 subnets in a VPC. If you add more than one subnet to a VPC, they're set up in a star topology with a logical router in the middle. If you feel you need more than 20 subnets, you can request more by going to http://aws.amazon.com/contact-us/vpc-request/.

When you create each subnet, you provide the VPC ID and the CIDR block you want for the subnet. Once you create a subnet, you can't change its CIDR block. The subnet's CIDR block can be the same as the VPC's CIDR block (assuming you want only a single subnet in the VPC), or a subset of the VPC's CIDR block. If you create more than one subnet in a VPC, the subnets' CIDR blocks must not overlap. The smallest subnet (and VPC) you can create uses a /28 netmask (16 IP addresses), and the largest uses a /16 netmask (65,536 IP addresses).

Important

AWS reserves both the first four and the last IP address in each subnet's CIDR block. They're not available for use.

Important

If you launch an instance in a VPC using an Amazon EBS-backed AMI, the IP address doesn't change if you stop and restart the instance (unlike a similar instance launched outside a VPC, which gets a new IP address when restarted). It's therefore possible to have a subnet with no running instances (they're all stopped), but no remaining IP addresses available. For more information about Amazon EBS-backed AMIs, go to AMI Basics in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2addsubnet**.

Syntax

```
ec2-create-subnet -c vpc_id -i cidr [ -z zone ]
```

Options

Name	Description	Required
`-c vpc_id`	The ID of the VPC where you want to create the subnet. Type: String Default: None Example: -c vpc-1a2b3c4d	Yes
`-i cidr`	The CIDR block you want the subnet to cover. Type: String Default: None Example: -i 10.0.1.0/24	Yes

Name	Description	Required
`-z zone`	The Availability Zone you want the subnet in. Type: String Default: AWS selects a zone for you (recommended). Example: -z us-east-1a	No

Common Options

Option	Description
`--region REGION`	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url URL`	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key EC2-PRIVATE-KEY`	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert EC2-CERT`	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout TIMEOUT`	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout TIMEOUT`	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.

Option	Description
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("SUBNET")
- Subnet ID, which uniquely identifies the subnet
- The current state of the subnet (pending or available)
- ID of the VPC the subnet is in
- CIDR block assigned to the subnet
- Number of IP addresses in the subnet that are available
- Availability Zone the subnet is in

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a subnet with CIDR block 10.0.1.0/24 in the VPC with ID vpc-1a2b3c4d.

```
PROMPT> ec2-create-subnet -c vpc-1a2b3c4d -i 10.0.1.0/24
SUBNET   subnet-9d4a7b6c  pending   vpc-1a2b3c4d  10.0.1.0/24   250   us-east-
1a
```

Related Operations

- ec2-describe-subnets (p. 300)
- ec2-delete-subnet (p. 160)

ec2-create-tags

Description

Adds or overwrites one or more tags for the specified resource or resources. Each resource can have a maximum of 10 tags. Each tag consists of a key and optional value. Tag keys must be unique per resource.

For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2addtag**.

Syntax

```
ec2-create-tags resource_id [resource_id ...] --tag key[=value] [--tag key[=value] ...]
```

Options

Name	Description	Required
resource_id	AWS-assigned ID of the resource you want to tag. You can specify multiple resources to assign the tags to. Type: String Default: None Example: ami-1a2b3c4d	Yes
`--tag` *key* or *key=value*	Key and optional value of the tag, separated by an equals sign (=). If you don't include a value, we set the value to an empty string. If you're using the command line tools on a Windows system, you might need to use quotation marks (i.e., "key=value"). Type: String Default: None Constraints: Maximum tag key length is 128 characters. Maximum tag value length is 256 characters. Tag keys and values are case sensitive and accept Unicode characters. Example: --tag stack=Production	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- TAG identifier
- Resource type (e.g., instance, image, etc.)
- Resource ID
- Tag key
- Tag value

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example adds (or overwrites) two tags for an AMI and an instance. One of the tags is just a key (webserver), with no value. The other consists of a key (stack) and value (Production). We set the value of the *webserver* tag to an empty string.

```
PROMPT> ec2-create-tags ami-1a2b3c4d i-7d3e5a2f --tag webserver --tag
stack=Production
TAG  image  ami-1a2b3c4d  webserver
TAG  image  ami-1a2b3c4d  stack  Production
TAG  instance  i-7d3e5a2f  webserver
TAG  instance  i-7d3e5a2f  stack  Production
```

Related Operations

- ec2-describe-tags (p. 304)
- ec2-delete-tags (p. 162)

ec2-create-volume

Description

Creates a new Amazon EBS volume that any Amazon EC2 instance in the same Availability Zone can attach to. Any AWS Marketplace product codes from the snapshot are propagated to the volume. For more information about Amazon EBS, go to the Amazon Elastic BLock Store.

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.

The short version of this command is **ec2addvol**.

Syntax

```
ec2-create-volume [ --size size | --snapshot snapshot [--size size] ]
--availability-zone zone
```

Options

Name	Description	Required
`-s, --size` *size*	The size of the volume, in GiBs. Type: String Valid Values: `1-1024` Condition: Required if you are not creating a volume from a snapshot. Default: If you're creating a volume from a snapshot and don't specify a size, the default is the snapshot size. Example: -s 80	Conditional
`--snapshot` *snapshot*	The snapshot from which to create the new volume. Type: String Default: None Condition: Required if you are creating a volume from a snapshot. Example: --snapshot snap-78a54011	Conditional
`-z, --availability-zone` *zone*	The Availability Zone in which to create the new volume. Type: String Default: None Example: -z us-east-1a	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- VOLUME identifier
- ID of the volume
- Size of the volume, in GiBs
- Snapshot from which the volume was created, if applicable
- Availability Zone in which the volume was created
- Volume state (e.g., creating, available, in use, deleting, error)
- Time stamp when volume creation was initiated

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a new 20 GiB volume in Availability Zone `us-east-1a`.

```
PROMPT> ec2-create-volume  --size 20 --availability-zone us-east-1a
VOLUME vol-4d826724 20 us-east-1a creating 2008-05-07T11:51:50+0000
```

Related Operations

- ec2-delete-volume (p. 165)
- ec2-describe-volumes (p. 308)
- ec2-attach-volume (p. 31)
- ec2-detach-volume (p. 339)
- ec2-describe-availability-zones (p. 182)

ec2-create-vpc

Description

Creates a VPC with the CIDR block you specify. The smallest VPC you can create uses a /28 netmask (16 IP addresses), and the largest uses a /16 netmask (65,536 IP addresses). To help you decide how big to make your VPC, go to Your VPC and Subnets in the *Amazon Virtual Private Cloud User Guide*.

By default, each instance you launch in the VPC has the default DHCP options that includes only a default DNS server that we provide (AmazonProvidedDNS).

For more information about Amazon Virtual Private Cloud and DHCP options, go to Using DHCP Options in Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2addvpc**.

Syntax

```
ec2-create-vpc cidr [tenancy]
```

Options

Name	Description	Required
cidr	The CIDR block you want the VPC to cover Type: String Default: None Example: 10.0.0.0/16	Yes
tenancy	The supported tenancy of instances launched into the VPC. A value of `default` means instances can be launched with any tenancy; a value of `dedicated` means all instances launched into the VPC will be launched as dedicated tenancy instances regardless of the tenancy assigned to the instance at launch. Setting the instance's tenancy attribute to `dedicated` specifies that your instance will run on single-tenant hardware. Type: String Default: default Valid Values: `default` | `dedicated`	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPC")
- VPC ID, which uniquely identifies the VPC
- CIDR block of the VPC
- The current state of the VPC (pending or available)
- ID of DHCP options associated with the VPC (or default if none)
- The allowed tenancy of instances launched into the VPC.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a VPC with CIDR block 10.0.0.0/16.

```
PROMPT> ec2-create-vpc 10.0.0.0/16
VPC  vpc-1a2b3c4d   pending   10.0.0.0/16   default
```

Related Operations

- ec2-describe-vpcs (p. 321)
- ec2-delete-vpc (p. 168)
- ec2-create-dhcp-options (p. 67)
- ec2-associate-dhcp-options (p. 19)

ec2-create-vpn-connection

Description

Creates a new VPN connection between an existing virtual private gateway and customer gateway. The only supported connection type is `ipsec.1`.

The response includes information that you need to give to your network administrator to configure your customer gateway. The underlying native format of this information is XML; however, with the **ec2-create-vpn-connection** command, you can transform the information into a different format based on the vendor that makes your customer gateway (e.g., Cisco or Juniper). If you use a vendor other than Cisco or Juniper, you can set the `--format` option to `generic`, and the information is formatted in a human readable format for your network administrator. If you want to see the native XML, you can specify `xml` as the value of the `--format` option. If you want to write your own stylesheet, you can use the `--stylesheet` option to specify that stylesheet and receive the output in your own format. Whereas the **ec2-create-vpn-connection** command lets you choose a format for the configuration information, the corresponding Amazon VPC API operation (`CreateVpnConnection`) returns only the native XML.

If you decide to shut down your VPN connection for any reason and then create a new one, you must reconfigure your customer gateway with the new information returned from this call.

For more information about Amazon Virtual Private Cloud and VPN connections, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2addvpn**.

Syntax

```
ec2-create-vpn-connection -t type --customer-gateway customer_gateway_id
--vpn-gateway vpn_gateway_id [{--format format} | {--stylesheet your_stylesheet}]
```

Options

Name	Description	Required
`-t` *type*	The type of VPN connection. Type: String Default: None Valid Values: `ipsec.1` Example: -t ipsec.1	Yes
`--customer-gateway` *customer_gateway_id*	The ID of the customer gateway. Type: String Default: None Example: --customer-gateway cgw-b4dc3961	Yes
`--vpn-gateway` *vpn_gateway_id*	The ID of the virtual private gateway. Type: String Default: None Example: --vpn-gateway vgw-8db04f81	Yes

Name	Description	Required
`--format` *format*	Causes the response to include customer gateway configuration information, in the format specified by this option. The returned information can be formatted for various devices, including a Cisco device (cisco-ios-isr) or Juniper device (juniper-junos-j), in human readable format (generic), or in the native XML format (xml). Type: String Default: None Valid Values: `cisco-ios-isr` | `juniper-junos-j` | `juniper-screenos-6.2` | `juniper-screenos-6.1` | `generic` | `xml` Example: --format cisco-ios-isr	No
`--stylesheet` *your_stylesheet*	Causes the response to include customer gateway configuration information, formatted according to the custom XSL stylesheet you specify with this option. Type: String Default: None Example: --stylesheet c:\my_stylesheet.xsl	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPNCONNECTION")
- VPN connection ID, which uniquely identifies the VPN connection
- Current state of the VPN connection (pending, available, deleting, deleted)
- Type of VPN connection
- Customer gateway ID
- Virtual private gateway ID
- Configuration information for the customer gateway

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a VPN connection between the virtual private gateway with ID vgw-8db04f81 and the customer gateway with ID cgw-b4dc3961. The example specifies that the configuration information be formatted as needed for a Cisco customer gateway. Because it's a long set of information, we haven't displayed it here in the response. To see an example of the information returned, go to the Amazon Virtual Private Cloud Network Administrator Guide.

```
PROMPT> ec2-create-vpn-connection -t ipsec.1 --customer-gateway cgw-b4dc3961 -
-vpn-gateway
 vgw-8db04f81 --format cisco-ios-isr
VPNCONNECTION  vpn-44a8938f  pending   ipsec.1   cgw-b4dc3961  vgw-8db04f81
<Long customer gateway configuration data...>
```

Related Operations

- ec2-describe-vpn-connections (p. 325)
- ec2-delete-vpn-connection (p. 170)
- ec2-create-vpc (p. 116)
- ec2-create-subnet (p. 107)
- ec2-attach-vpn-gateway (p. 34)

ec2-create-vpn-gateway

Description

Creates a new virtual private gateway. A virtual private gateway is the VPC-side endpoint for your VPN connection. You can create a virtual private gateway before creating the VPC itself.

For more information about Amazon Virtual Private Cloud and virtual private gateway, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2addvgw**.

Syntax

```
ec2-create-vpn-gateway -t type
```

Options

Name	Description	Required
`-t type`	The type of VPN connection this virtual private gateway supports. Type: String Default: None Valid Values: `ipsec.1` Example: -t ipsec.1	Yes
`-z availability_zone`	The Availability Zone option has been deprecated. The command will accept this option and ignore it. Type: String Default: None	No

Common Options

Option	Description
`--region REGION`	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url URL`	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPNGATEWAY")
- Virtual private gateway ID, which uniquely identifies the virtual private gateway
- Current state of the virtual private gateway (pending, available, deleting, deleted)
- Type of VPN connection the virtual private gateway supports
- Availability Zone the virtual private gateway is in
- Information about VPCs attached to the virtual private gateway (there are none attached when you first create a virtual private gateway)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a virtual private gateway.

```
PROMPT> ec2-create-vpn-gateway -t ipsec.1
VPNGATEWAY  vgw-8db04f81   pending   ipsec.1
```

Related Operations

- ec2-describe-vpn-gateways (p. 330)
- ec2-delete-vpn-gateway (p. 173)
- ec2-attach-vpn-gateway (p. 34)
- ec2-detach-vpn-gateway (p. 342)

ec2-delete-customer-gateway

Description

Deletes a customer gateway. You must delete the VPN connection before deleting the customer gateway.

For more information about Amazon Virtual Private Cloud and VPN customer gateways, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2delcgw**.

Syntax

```
ec2-delete-customer-gateway customer_gateway_id
```

Options

Name	Description	Required
customer_gateway_id	The ID of the customer gateway you want to delete. Type: String Default: None Example: cgw-b4dc3961	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("CUSTOMERGATEWAY")
- Customer gateway ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the customer gateway with ID cgw-b4dc3961.

```
PROMPT> ec2-delete-customer-gateway cgw-b4dc3961
CUSTOMERGATEWAY cgw-b4dc3961
```

Related Operations

- ec2-create-customer-gateway (p. 64)
- ec2-describe-customer-gateways (p. 192)

ec2-delete-dhcp-options

Description

Deletes a set of DHCP options that you specify. Amazon VPC returns an error if the set of options you specify is currently associated with a VPC. You can disassociate the set of options by associating either a new set of options or the default options with the VPC.

For more information about Amazon Virtual Private Cloud and DHCP options sets, go to Using DHCP Options in Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2deldopt**.

Syntax

```
ec2-delete-dhcp-options dhcp_options_id
```

Options

Name	Description	Required
dhcp_options_id	The ID of the DHCP options set you want to delete. Type: String Default: None Example: dopt-7a8b9c2d	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("DHCPOPTIONS")
- DHCP options ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the set of DHCP options with ID dopt-7a8b9c2d.

```
PROMPT> ec2-delete-dhcp-options dopt-7a8b9c2d
DHCPOPTIONS dopt-7a8b9c2d
```

Related Operations

- ec2-associate-dhcp-options (p. 19)
- ec2-create-dhcp-options (p. 67)

- ec2-describe-dhcp-options (p. 196)

ec2-delete-disk-image

Description

Deletes a partially or fully uploaded disk image for conversion from Amazon S3. You can specify either the conversion task ID, or the URL to the import manifest file in Amazon S3. For more information, go to Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2 in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2ddi**.

Syntax

```
ec2-delete-disk-image { -t task_id | -u url } -o owner_access_key_id -w
owner_secret_access_key [--ignore-active-task]
```

Options

Name	Description	Required
`-t, --task` *task_id*	Task ID of the conversion task that is no longer active. Type: String Default: None Condition: Either the task ID or the URL to the manifest is required. Example: -t import-i-fh95npoc	Conditional
`-u, --manifest-url` *url*	Specify the URL for an existing import manifest file. Use this option to delete the uploaded disk image even if one or more active conversion tasks still reference the manifest. Type: String Default: None Condition: Either the task ID or the URL to the manifest is required. Example: -u http://some-s3-location/mydisk-to-delete.vmdk	Conditional
`-o, --owner-akid` *owner_access_key_id*	Access Key ID of the owner of the bucket containing the uploaded disk image to be deleted. This parameter value is not sent to EC2. Type: String Default: None Example: -o AKIAIOSFODNN7EXAMPLE	Yes

Name	Description	Required
`-w, --owner-sak` *owner_secret_access_key*	AWS Secret Access Key of the owner of the bucket containing the uploaded disk image to be deleted. This parameter value is not sent to EC2. Type: String Default: None Example: -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY	Yes
--ignore-active-task	Delete the uploaded disk image despite having an active task. Using this option may cause active tasks to fail. Use this option at your own risk. Type: String Default: None Example: --ignore-active-task	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.

Option	Description
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Task ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the `import-i-fh95npoc` disk image.

```
PROMPT> ec2-delete-disk-image -t import-i-fh95npoc -o AKIAIOSFODNN7EXAMPLE -w
wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
DELETE-TASK import-i-fh95npoc
```

Related Operations

- ec2-import-instance (p. 361)
- ec2-import-volume (p. 370)
- ec2-resume-import (p. 449)
- ec2-cancel-conversion-task (p. 50)

ec2-delete-group

Description

Deletes a security group. This action applies to both EC2 security groups and VPC security groups. For information about VPC security groups and how they differ from EC2 security groups, go to Security Groups in the *Amazon Virtual Private Cloud User Guide*.

Note

If you attempt to delete a security group that contains instances, or attempt to delete a security group that is referenced by another security group, an error 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 rule is removed.

The fault returned is `InvalidGroup.InUse` for EC2 security groups, or `DependencyViolation` for VPC security groups.

The short version of this command is **ec2delgrp**.

Syntax

```
ec2-delete-group { group_name | group_id }
```

Options

Name	Description	Required
group_name	Name of the EC2 security group to delete. Type: String Default: None Condition: Either the group name or the group ID is required. Example: websrv	Conditional
group_id	ID of the security group to delete. Type: String Default: None Condition: Required for a VPC security group. For an EC2 security group, either the group name or the group ID is required. Example: sg-32fa9d3e	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the EC2 security group called *webserv*.

```
PROMPT> ec2-delete-group websrv
RETURN true
```

Example Request

This example deletes the VPC security group with ID sg-43eeba92.

```
PROMPT> ec2-delete-group sg-43eeba92
RETURN true
```

Related Operations

- ec2-create-group (p. 70)
- ec2-describe-group (p. 203)
- ec2-authorize (p. 37)
- ec2-revoke (p. 453)

ec2-delete-internet-gateway

Description

Deletes an Internet gateway from your AWS account. The gateway must not be attached to a VPC. For more information about your VPC and Internet gateway, go to the Amazon Virtual Private Cloud User Guide.

The short version of this command is **ec2deligw**.

Syntax

```
ec2-delete-internet-gateway internet_gateway_id
```

Options

Name	Description	Required
internet_gateway_id	The ID of the Internet gateway you want to delete. Type: String Default: None Example: igw-8db04f81	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the Internet gateway with ID igw-eaad4883.

```
PROMPT> ec2-delete-internet-gateway igw-eaad4883
RETURN   true
```

Related Operations

- ec2-create-internet-gateway (p. 77)
- ec2-attach-internet-gateway (p. 25)
- ec2-detach-internet-gateway (p. 334)

- ec2-describe-internet-gateways (p. 236)

ec2-delete-keypair

Description

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

The short version of this command is **ec2delkey**.

Syntax

```
ec2-delete-keypair key_pair
```

Options

Name	Description	Required
key_pair	Name of the key pair to delete. Type: String Default: None Example: primary_keypair	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- KEYPAIR identifier
- Name of the deleted key pair

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the `gsg-keypair` key pair.

```
PROMPT> ec2-delete-keypair gsg-keypair
KEYPAIR gsg-keypair
```

Related Operations

- ec2-create-keypair (p. 79)
- ec2-describe-keypairs (p. 240)

ec2-delete-network-acl

Description

Deletes a network ACL from a VPC. The ACL must not be associated with any subnets. You can't delete the default network ACL. For more information about network ACLs, go to Network ACLs in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2delnacl**.

Syntax

```
ec2-delete-network-acl acl_id
```

Options

Name	Description	Required
acl_id	The ID of the network ACL to be deleted. Type: String Default: None Example: acl-2cb85d45	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the network ACL with ID acl-2cb85d45.

```
PROMPT> ec2-delete-network-acl acl-2cb85d45
RETURN    true
```

Related Operations

- ec2-create-network-acl (p. 82)
- ec2-describe-network-acls (p. 243)
- ec2-replace-network-acl-association (p. 413)

ec2-delete-network-acl-entry

Description

Deletes an ingress or egress entry (i.e., rule) from a network ACL. For more information about network ACLs, go to Network ACLs in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2delnae**.

Syntax

```
ec2-delete-network-acl-entry acl_id -n rule_number [--egress]
```

Options

Name	Description	Required
acl_id	ID of the network ACL. Type: String Default: None Example: acl-5fb85d36	Yes
`-n, --rule-number` *rule_number*	Rule number for the entry to delete. Type: Number Default: None Example: 100	Yes
`--egress`	Optional flag to indicate that the rule to delete is an egress rule. Default: If not specified, we assume the rule to delete is an ingress rule.	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the ingress entry with rule number 100 from the network ACL with ID acl-2cb85d45.

```
PROMPT> ec2-delete-network-acl-entry acl-2cb85d45 -n 100
RETURN true
```

Example Request

This example deletes the egress entry with rule number 200 from the network ACL with ID acl-2cb85d45.

```
PROMPT> ec2-delete-network-acl-entry acl-2cb85d45 -n 200 --egress
RETURN true
```

Related Operations

- ec2-replace-network-acl-entry (p. 416)
- ec2-create-network-acl-entry (p. 85)
- ec2-describe-network-acls (p. 243)

ec2-delete-network-interface

Description

Deletes a network interface. Network interfaces must be detached from an instance before they can be deleted.

The short version of this command is **ec2delnic**.

Syntax

```
ec2-delete-network-interface NETWORKINTERFACE
```

Options

Name	Description	Required
NETWORKINTERFACE	The network interface ID. Type: String Default: None Example: eni-3a9f6553	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the name of the network interface that you deleted.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the specified network interface.

```
PROMPT> ec2-delete-network-interface eni-3a9f6553
NETWORKINTERFACE        eni-3a9f6553
```

Related Operations

- ec2-create-network-interface (p. 89)
- ec2-describe-network-interfaces (p. 248)
- ec2-describe-network-interface-attribute (p. 254)
- ec2-attach-network-interface (p. 28)
- ec2-detach-network-interface (p. 337)
- ec2-modify-network-interface-attribute (p. 387)
- ec2-reset-network-interface-attribute (p. 444)

ec2-delete-placement-group

Description

Deletes a placement group in your account. You must terminate all instances in the placement group before deleting it. For more information about placement groups and cluster instances, go to Using Cluster Instances in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2delpgrp**.

```
ec2-delete-placement-group placement-group
```

Options

Name	Description	Required
placement-group	The name of the placement group. Type: String Default: None Example: XYZ-cluster	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45

Option	Description
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
-H, --headers	Displays column headers in the output.
--show-empty-fields	Shows empty columns as (nil).
--hide-tags	Do not display tags for tagged resources.
--debug	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
-?, --help, -h	Displays Help.
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -

Output

The command returns the following information:

- PLACEMENTGROUP identifier
- Placement group name
- Placement group status (e.g., deleted)

Examples

Example Request

This example deletes the XYZ-cluster placement group.

```
PROMPT> ec2-delete-placement-group XYZ-cluster
PLACEMENTGROUP  XYZ-cluster  deleted
```

Related Operations

- ec2-create-placement-group (p. 92)
- ec2-describe-placement-groups (p. 257)

ec2-delete-route

Description

Deletes a route from a route table in a VPC. For more information about route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2delrt**.

Syntax

```
ec2-delete-route route_table_id -r cidr
```

Options

Name	Description	Required
route_table_id	The ID of the route table where the route will be deleted. Type: String Default: None Example: rtb-5da34634	Yes
`-r, --cidr` *cidr*	The CIDR range for the route you want to delete. The value you specify must exactly match the CIDR for the route you want to delete. Type: String Default: None Example: 0.0.0.0/0	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example removes the route with destination CIDR 172.16.1.0/24 from the route table with ID rtb-e4ad488d.

```
PROMPT> ec2-delete-route rtb-e4ad488d -r 172.16.1.0/24
RETURN          true
```

Related Operations

- ec2-create-route (p. 95)
- ec2-replace-route (p. 420)
- ec2-describe-route-tables (p. 274)

ec2-delete-route-table

Description

Deletes a route table from a VPC. The route table must not be associated with a subnet. You can't delete the main route table. For more information about route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2delrtb**.

Syntax

```
ec2-delete-route-table route_table_id
```

Options

Name	Description	Required
route_table_id	The ID of the route table to delete. Type: String Default: None Example: rtb-7aa34613	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the route table with ID rtb-7aa34613.

```
PROMPT> ec2-delete-route-table rtb-7aa34613
RETURN   true
```

Related Operations

- ec2-create-route-table (p. 98)
- ec2-associate-route-table (p. 22)
- ec2-disassociate-route-table (p. 348)
- ec2-describe-route-tables (p. 274)
- ec2-replace-route-table-association (p. 423)

ec2-delete-snapshot

Description

Deletes a snapshot of an Amazon EBS volume.

Note

If you make periodic snapshots of a volume, the snapshots are incremental so that only the blocks on the device that have changed since your last snapshot are incrementally saved in the new snapshot. Even though snapshots are saved incrementally, the snapshot deletion process is designed so that you need to retain only the most recent snapshot in order to restore the volume.

The short version of this command is **ec2delsnap**.

Syntax

```
ec2-delete-snapshot snapshot_id
```

Options

Name	Description	Required
snapshot_id	The ID of the Amazon EBS snapshot to delete. Type: String Default: None Example: snap-78a54011	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- SNAPSHOT identifier
- ID of the snapshot

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes snapshot `snap-78a54011`.

```
PROMPT> ec2-delete-snapshot snap-78a54011
SNAPSHOT snap-78a54011
```

Related Operations

- ec2-create-snapshot (p. 101)
- ec2-describe-snapshots (p. 282)

ec2-delete-spot-datafeed-subscription

Description

Deletes the data feed for Spot Instances. For more information about Spot Instances, go to Spot Instances in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2delsds**.

Syntax

```
ec2-delete-spot-datafeed-subscription
```

Options

This command does not have any options.

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.

Option	Description
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns no output.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the data feed for the account.

```
PROMPT> ec2-delete-spot-datafeed-subscription
-
```

Related Operations

- ec2-create-spot-datafeed-subscription (p. 104)
- ec2-describe-spot-datafeed-subscription (p. 287)

ec2-delete-subnet

Description

Deletes a subnet from a VPC. You must terminate all running instances in the subnet before deleting it, otherwise Amazon VPC returns an error.

The short version of this command is **ec2delsubnet**.

Syntax

```
ec2-delete-subnet subnet_id
```

Options

Name	Description	Required
subnet_id	The ID of the subnet you want to delete. Type: String Default: None Example: subnet-9d4a7b6c	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("SUBNET")
- Subnet ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the subnet with ID subnet-9d4a7b6c.

```
PROMPT> ec2-delete-subnet subnet-9d4a7b6c
SUBNET subnet-9d4a7b6c
```

Related Operations

- ec2-create-subnet (p. 107)
- ec2-describe-subnets (p. 300)

ec2-delete-tags

Description

Deletes a specific set of tags from a specific set of resources. This call is designed to follow a `ec2-describe-tags` call. You first determine what tags a resource has, and then you call `ec2-delete-tags` with the resource ID and the specific tags you want to delete.

For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2deltag**.

Syntax

```
ec2-delete-tags resource_id [resource_id ... ] --tag key[=value] [--tag key[=value ...]
```

Options

Name	Description	Required
resource_id	AWS-assigned identifier for the resource whose tag you want to delete. You can specify more than one resource ID. Type: String Default: None Example: i-1a2b3c4d	Yes
`--tag` *key* or *key=value*	Key and optional value of the tag, separated by an equals sign (=). You can specify more than one tag to remove. Type: String Default: None Example: --tag stack=Production	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns no output if the deletion is successful.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the tags for the AMI with ID ami-1a2b3c4d. You first get a list of the tags.

```
PROMPT> ec2-describe-tags --filter "resource-id=ami-1a2b3c4d"
     TAG  ami-1a2b3c4d  image  webserver
     TAG  ami-1a2b3c4d  image  stack  Production
```

Then you delete the tags. Specifying the value for the *stack* tag is optional.

```
PROMPT> ec2-delete-tags ami-1a2b3c4d --tag webserver --tag stack=Production
```

If you specify a value for the key, the tag is deleted only if the tag's value matches the one you specified. If you specify the empty string as the value, the tag is deleted only if the tag's value is the empty string. The following example specifies the empty string as the value for the tag to delete (notice the equals sign after `Owner`).

```
PROMPT>  ec2-delete-tags snap-4dfg39a --tag Owner=
```

Example Request

This example deletes the *stack* tag from two particular instances.

```
PROMPT> ec2-delete-tags i-5f4e3d2a i-12345678 --tag stack
```

Example Request

You can specify a tag key without a corresponding tag value if you want to delete the tag regardless of its value. This example deletes all tags for the specified resources where key=Purpose, regardless of the tag value.

```
PROMPT> ec2-delete-tags i-5f4e3d2a i-4d5h8a9b i-1d3d4fae --tag Purpose
```

Related Operations

- ec2-create-tags (p. 110)
- ec2-describe-tags (p. 304)

ec2-delete-volume

Description

Deletes an Amazon EBS volume. The volume must be in the `available` state (not attached to an instance). For more information about Amazon EBS, go to Amazon Elastic BLock Store in the *Amazon Elastic Compute Cloud User Guide*.

Note

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

The short version of this command is **ec2delvol**.

Syntax

```
ec2-delete-volume volume_id
```

Options

Name	Description	Required
volume_id	The ID of the volume to delete. Type: String Default: None Example: vol-4282672b	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- VOLUME identifier
- ID of the volume you deleted

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes volume `vol-4282672b`.

```
PROMPT> ec2-delete-volume vol-4282672b
VOLUME vol-4282672b
```

Related Operations

- ec2-create-volume (p. 113)
- ec2-describe-volumes (p. 308)
- ec2-attach-volume (p. 31)
- ec2-detach-volume (p. 339)

ec2-delete-vpc

Description

Deletes a VPC. You must detach or delete all gateways or other objects that are dependent on the VPC first. For example, you must terminate all running instances, delete all VPC security groups (except the default), delete all the route tables (except the default), etc.

The short version of this command is **ec2delvpc**.

Syntax

```
ec2-delete-vpc vpc_id
```

Options

Name	Description	Required
vpc_id	The ID of the VPC to delete. Type: String Default: None Example: vpc-1a2b3c4d	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPC")
- The VPC ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the VPC with ID vpc-1a2b3c4d.

```
PROMPT> ec2-delete-vpc vpc-1a2b3c4d
VPC vpc-1a2b3c4d
```

Related Operations

- ec2-create-vpc (p. 116)
- ec2-describe-vpcs (p. 321)

ec2-delete-vpn-connection

Description

Deletes a VPN connection. Use this if you want to delete a VPC and all its associated components. Another reason to use this command is if you believe the tunnel credentials for your VPN connection have been compromised. In that situation, you can delete the VPN connection and create a new one that has new keys, without needing to delete the VPC or virtual private gateway. If you create a new VPN connection, you must reconfigure the customer gateway using the new configuration information returned with the new VPN connection ID.

If you're deleting the VPC and all its associated parts, we recommend you detach the virtual private gateway from the VPC and delete the VPC before deleting the VPN connection.

For more information about Amazon Virtual Private Cloud and VPN connections, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2delvpn**.

Syntax

```
ec2-delete-vpn-connection vpn_connection_id
```

Options

Name	Description	Required
vpn_connection_id	The ID of the VPN connection you want to delete. Type: String Default: None Example: vpn-44a8938f	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPNCONNECTION")
- VPN connection ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the VPN connection with ID vpn-44a8938f.

```
PROMPT> ec2-delete-vpn-connection vpn-44a8938f
VPNCONNECTION vpn-44a8938f
```

Related Operations

- ec2-create-vpn-connection (p. 119)
- ec2-describe-vpn-connections (p. 325)
- ec2-detach-vpn-gateway (p. 342)
- ec2-delete-vpc (p. 168)

ec2-delete-vpn-gateway

Description

Deletes a virtual private gateway. Use this when you want to delete a VPC and all its associated components because you no longer need them. We recommend that before you delete a virtual private gateway, you detach it from the VPC and delete the VPN connection. Note that you don't need to delete the virtual private gateway if you just want to delete and recreate the VPN connection between your VPC and data center.

For more information about Amazon Virtual Private Cloud and virtual private gateways, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2delvgw**.

Syntax

```
ec2-delete-vpn-gateway vpn_gateway_id
```

Options

Name	Description	Required
vpn_gateway_id	The ID of the virtual private gateway you want to delete. Type: String Default: None Example: vgw-8db04f81	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPNGATEWAY")
- Virtual private gateway ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deletes the virtual private gateway with ID vgw-8db04f81.

```
PROMPT> ec2-delete-vpn-gateway vgw-8db04f81
VPNGATEWAY vgw-8db04f81
```

Related Operations

- ec2-create-vpn-gateway (p. 123)
- ec2-describe-vpn-gateways (p. 330)
- ec2-delete-vpn-connection (p. 170)

ec2-deregister

Description

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

Note

This command does not delete the AMI.

The short version of this command is **ec2dereg**.

Syntax

```
ec2-deregister ami_id
```

Options

Name	Description	Required
ami_id	ID of the AMI to deregister. Type: String Default: None Example: ami-4fa54026	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- IMAGE identifier
- The ID of the AMI that was deregistered

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example deregisters the `ami-4fa54026` AMI.

```
PROMPT> ec2-deregister ami-4fa54026
IMAGE ami-4fa54026
```

Related Operations

- ec2-register (p. 405)
- ec2-describe-images (p. 211)

ec2-describe-addresses

Description

Gives information about Elastic IP addresses allocated to your account. This includes both EC2 and VPC Elastic IP addresses. For information about VPC addresses and how they differ from EC2 addresses, go to Elastic IP Addresses in the *Amazon Virtual Private Cloud User Guide*.

You can filter the results to return information only about Elastic IP addresses that match criteria you specify. For example, you could get information only about addresses tagged with a certain value. You can specify multiple values for a filter. An address must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the address is a particular value, and is tagged with a certain value). The result includes information for an address only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`domain`	Whether the address is a EC2 address, or a VPC address. Type: String Valid Values: `standard` | `vpc`
`instance-id`	Instance the address is associated with (if any). Type: String
`public-ip`	The Elastic IP address. Type: String
`allocation-id`	Allocation ID for the address (for VPC addresses only). Type: String
`association-id`	Association ID for the address (for VPC addresses only). Type: String

The short version of this command is **ec2daddr**.

Syntax

```
ec2-describe-addresses [public_ip ... | allocation_id ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
public_ip	EC2 Elastic IP address to describe. Type: String Default: Describes all addresses you own, or only those otherwise specified. Example: 198.51.100.1	No
allocation_id	VPC Elastic IP address to describe. Type: String Default: Describes all addresses you own, or only those otherwise specified. Example: eipalloc-9558a4fc	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all addresses you own, or only those otherwise specified. Example: --filter "instance-id=i-1a2b3c4d"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ADDRESS")
- Elastic IP address
- Instance ID to which the IP address is assigned
- The domain of the address (standard or vpc)
- Allocation ID (for VPC addresses only)
- Association ID (for VPC addresses only)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the EC2 address 192.0.2.1, which is assigned to instance i-f15ebb98.

```
PROMPT> ec2-describe-addresses 192.0.2.1
ADDRESS  192.0.2.1   i-f15ebb98  standard
```

Example Request

This example describes the VPC address with allocation ID eipalloc-9258a4fb, which is assigned to instance i-9e9da4e9.

```
PROMPT> ec2-describe-addresses eipalloc-9258a4fb
ADDRESS 198.51.100.1   i-9e9da4e9      vpc     eipalloc-9258a4fb   eipassoc-
0659a56f
```

Example Request

This example describes all your Elastic IP addresses (both EC2 and VPC).

```
PROMPT> ec2-describe-addresses
ADDRESS 192.0.2.1   i-f15ebb98  standard
ADDRESS 198.51.100.1   i-9e9da4e9      vpc     eipalloc-9258a4fb   eipassoc-
0659a56f
ADDRESS 203.0.113.1            vpc     eipalloc-9558a4fc
```

Example Request

This example describes only your VPC Elastic IP addresses.

```
PROMPT> ec2-describe-addresses --filter "allocation-id=*"
ADDRESS 198.51.100.1   i-9e9da4e9      vpc     eipalloc-9258a4fb   eipassoc-
0659a56f
ADDRESS 203.0.113.1            vpc     eipalloc-9558a4fc
```

Related Operations

- ec2-allocate-address (p. 12)
- ec2-release-address (p. 410)
- ec2-associate-address (p. 15)
- ec2-disassociate-address (p. 345)

ec2-describe-availability-zones

Description

Displays Availability Zones that are currently available to the account. The results include zones only for the Region you're currently using.

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.

You can filter the results to return information only about zones that match criteria you specify. For example, you could filter the results to return only the zones whose state is `available`. You can specify multiple filters (e.g., the zone is in a particular Region, and the state is `available`). The result includes information for a particular zone only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`message`	Message giving information about the Availability Zone. Type: String
`region-name`	Region the Availablity Zone is in (e.g., us-east-1). Type: String
`state`	State of the Availability Zone Type: String Valid Values: `available`
`zone-name`	Name of the zone. Type: String

The short version of this command is **ec2daz**.

Syntax

```
ec2-describe-availability-zones [zone_name ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
zone_name	Availability Zone name. Type: String Default: Shows all zones in the Region. Example: us-east-1a	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Shows all zones in the Region, or only the ones you've otherwise specified. Example: --filter "region-name=ap-southeast-1"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45

Option	Description
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
-H, --headers	Displays column headers in the output.
--show-empty-fields	Shows empty columns as (nil).
--hide-tags	Do not display tags for tagged resources.
--debug	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
-?, --help, -h	Displays Help.
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -

Output

The command returns a table that contains the following information:

- AVAILABILITYZONE identifier
- Availability Zone name
- State of the zone

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example displays information about Availability Zones that are available to the account. The results include zones only for the Region you're currently using.

```
PROMPT> ec2-describe-availability-zones
AVAILABILITYZONE us-east-1a available
AVAILABILITYZONE us-east-1b available
AVAILABILITYZONE us-east-1c available
AVAILABILITYZONE us-east-1d available
```

Related Operations

- ec2-run-instances (p. 458)
- ec2-describe-regions (p. 260)

ec2-describe-bundle-tasks

Description

Describes current bundling tasks.

Note

Completed bundle tasks are listed for only a limited time. If your bundle task is no longer in the list, you can still register an AMI from it. Just use the `ec2-register` command with the Amazon S3 bucket name and image manifest name you provided to the bundle task.

You can filter the results to return information only about tasks that match criteria you specify. For example, you could filter the results to return only the tasks whose state is `complete`. You can specify multiple values for a filter. A bundle task must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the bundle is stored in a particular Amazon S3 bucket and the state is `complete`). The result includes information for a particular bundle task only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`bundle-id`	ID of the bundle task. Type: String
`error-code`	If the task failed, the error code returned. Type: String
`error-message`	If the task failed, the error message returned. Type: String
`instance-id`	ID of the instance that was bundled. Type: String
`progress`	Level of task completion, in percent (e.g., 20%). Type: String
`s3-bucket`	Amazon S3 bucket where the AMI will be stored. Type: String
`s3-prefix`	Beginning of the AMI name. Type: String
`start-time`	Time the task started, e.g., 2008-09-15T17:15:20.000Z. Type: xsd:dateTime

Filter Name	Description
`state`	State of the task. Type: String Valid Values: `pending` | `waiting-for-shutdown` | `bundling` | `storing` | `cancelling` | `complete` | `failed`
`update-time`	Time of the most recent update for the task, e.g., 2008-09-15T17:15:20.000Z. Type: xsd:dateTime

The short version of this command is **ec2dbun**.

Syntax

```
ec2-describe-bundle-tasks [bundle ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
bundle	The ID of the bundle task to describe. Type: String Default: Describes all bundle tasks, or only those otherwise specified. Example: bun-cla432a3	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all your bundle tasks, or only those otherwise specified. Example: --filter "state=pending"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- BUNDLE identifier
- ID of the bundle
- ID of the instance
- Bucket name
- Prefix
- Start time

- Update time
- State (pending, waiting-for-shutdown, bundling, storing, cancelling, complete, failed)
- Progress in % if state is "bundling"

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the status of the `bun-c1a540a8` bundle task.

```
PROMPT> ec2-describe-bundle-tasks bun-c1a540a8
BUNDLE bun-c1a540a8  i-2674d22r  myawsbucket  winami  2008-09-15T17:15:20.000Z
  2008-09-15T17:15:20.000Z  bundling  3%
```

Example Request

This example filters the results to display only bundle tasks whose state is either `complete` or `failed`, and in addition are targeted for the Amazon S3 bucket called `myawsbucket`.

```
PROMPT> ec2-describe-bundle-tasks --filter "s3-bucket=myawsbucket" --filter
"state=complete" --filter "state=failed"
BUNDLE bun-1a2b3c4d  i-8765abcd  myawsbucket  linuxami  2008-09-14T08:32:43.000Z
  2008-09-14T08:32:43.000Z  complete
```

Related Operations

- ec2-bundle-instance (p. 43)
- ec2-cancel-bundle-task (p. 47)

ec2-describe-conversion-tasks

Description

Lists and describes your conversion tasks. For more information, go to Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2 in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2dct**.

Syntax

```
ec2-describe-conversion-tasks [task_id ...] [--show-transfer-details]
```

Options

Name	Description	Required
task_id	The conversion task ID for the upload. If not specified, all of your conversion tasks are returned. Type: String Default: None Example: import-i-ffvko9js	No
--show-transfer-details	Displays additional details for uploading the disk image. The `ec2-upload-disk-image` command automatically returns this information. Type: None Default: None Example: --show-transfer-details	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the following information:

- Information about the task, such as the task ID, task type, expiration, status, and number of bytes received
- Information about the image, such as the image size, format, volume ID, and volume size

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example shows the status of your import instance task.

```
PROMPT>ec2-describe-conversion-tasks import-i-ffvko9js
```

Related Operations

- ec2-import-instance (p. 361)
- ec2-import-volume (p. 370)
- ec2-resume-import (p. 449)
- ec2-delete-disk-image (p. 130)
- ec2-cancel-conversion-task (p. 50)

ec2-describe-customer-gateways

Description

Gives you information about your customer gateways. You can filter the results to return information only about customer gateways that match criteria you specify. For example, you could get information only about gateways whose state is `pending` or `available`. The customer gateway must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the customer gateway has a particular IP address for the Internet-routable external interface, and the gateway's state is `pending` or `available`). The result includes information for a particular customer gateway only if the gateway matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`bgp-asn`	The customer gateway's Border Gateway Protocol (BGP) Autonomous System Number (ASN). Type: String
`customer-gateway-id`	ID of the customer gateway. Type: String
`ip-address`	The IP address of the customer gateway's Internet-routable external interface (e.g., 12.1.2.3). Type: String
`state`	The state of the customer gateway. Type: String Valid Values: `pending` | `available` | `deleting` | `deleted`
`type`	The type of customer gateway. Currently the only supported type is `ipsec.1`. Type: String Valid Values: `ipsec.1`
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

Filter Name	Description

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

For more information about Amazon Virtual Private Cloud and VPN customer gateways, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2dcgw**.

Syntax

```
ec2-describe-customer-gateways [ customer_gateway_id  ... ] [[--filter
name=value] ...]
```

Options

Name	Description	Required
`customer_gateway_id`	A customer gateway ID. You can specify more than one in the request. Type: String Default: Returns information about all your customer gateways. Example: cgw-b4dc3961	No
`-F, --filter` *`name=value`*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all customer gateways you own, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("CUSTOMERGATEWAY")
- Customer gateway ID
- State of the customer gateway (pending, available, deleting, deleted)
- Type of VPN connection the customer gateway supports
- Internet-routable IP address of the customer gateway's outside interface
- The customer gateway's Border Gateway Protocol (BGP) Autonomous System Number (ASN)
- Any tags assigned to the customer gateway

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example gives a description of the customer gateway with ID cgw-b4dc3961.

```
PROMPT> ec2-describe-customer-gateways cgw-b4dc3961
CUSTOMERGATEWAY  cgw-b4dc3961   available   ipsec.1  12.1.2.3  65534
```

Example Request

This example uses filters to give a description of any customer gateway you own whose IP address is 12.1.2.3, and whose state is either `pending` or `available`.

```
PROMPT> ec2-describe-customer-gateways --filter "ip-address=12.1.2.3"  --filter
 "state=pending" --filter "state=available"
CUSTOMERGATEWAY  cgw-b4dc3961   available   ipsec.1  12.1.2.3  65534
```

Related Operations

- ec2-create-customer-gateway (p. 64)
- ec2-delete-customer-gateway (p. 126)

ec2-describe-dhcp-options

Description

Gives you information about one or more sets of DHCP options. You can specify one or more DHCP options set IDs, or no IDs (to describe all your sets of DHCP options).

You can filter the results to return information only about sets of options that match criteria you specify. For example, you could get information for sets that have a certain value for the `domain-name` option. You can specify multiple values for the filter. The option must match at least one of the specified values for the options set to be included in the results.

You can specify multiple filters (e.g., a certain value for `domain-name`, and a tag with a certain value). The result includes information for a set of options only if the specified option matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`dhcp-options-id`	The ID of a set of DHCP options. Type: String
`key`	The key for one of the options (e.g., `domain-name`). Type: String
`value`	The value for one of the options. Type: String
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

For more information about Amazon Virtual Private Cloud and DHCP options sets, go to Using DHCP Options in Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2ddopt**.

Syntax

```
ec2-describe-dhcp-options [ dhcp_options_id  ... ] [[--filter name=value] ...]
```

Options

Name	Description	Required
dhcp_options_id	A DHCP options set ID. You can specify more than one in the request. Type: String Default: Returns information about all your sets of DHCP options, or only those otherwise specified. Example: dopt-7a8b9c2d	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all DHCP options set you own, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("DHCPOPTIONS")
- DHCP options set ID
- Name and values for each option in the set
- Any tags assigned to the set

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example gives a description of the DHCP options set with ID dopt-7a8b9c2d.

```
PROMPT> ec2-describe-dhcp-options dopt-7a8b9c2d
DHCPOPTIONS  dopt-7a8b9c2d
OPTION  domain-name  mydomain.com
OPTION  domain-name-servers  10.2.5.1,10.2.5.2
```

Example Request

This example uses filters to give a description of any DHCP options set that includes a `domain-name` option whose value includes the string `example`.

```
PROMPT> ec2-describe-dhcp-options --filter "key=domain-name" --filter
"value=*example*"
```

Related Operations

- ec2-create-dhcp-options (p. 67)
- ec2-associate-dhcp-options (p. 19)
- ec2-delete-dhcp-options (p. 128)

ec2-describe-export-tasks

Description

Lists the information about your export tasks, including the most recent canceled and completed tasks.

The short version of this command is **ec2dxt**.

Syntax

```
ec2-describe-export-tasks [ task_id  ... ] [[--filter name=value] ...]
```

Options

Name	Description	Required
task_id	The export task ID returned by `ec2-create-instance-export-task`. If not specified, all of your export tasks are returned. Type: String Default: None Example: The export task ID returned by ec2-create-instance-export-task . If not specified, all of your export tasks are returned	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns information about the export task including:

- task ID
- status
- export progress

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the export task with the ID export-i-fgelt0i7.

```
PROMPT> ec2-describe-export-tasks  export-i-fgelt0i7
EXPORTTASK    export-i-fgelt0i7    active    i-81428ee7    vmware     vmdk
myexportbucket    export-i-fgelt0i7.vmdk
```

Related Operations

- ec2-cancel-export-task (p. 53)
- ec2-create-instance-export-task (p. 61)

ec2-describe-group

Description

Returns information about security groups in your account. This includes both EC2 security groups and VPC security groups. For information about how the two types of groups differ, go to Security Groups in the *Amazon Virtual Private Cloud User Guide*.

You can filter the results to return information only about security groups that match criteria you specify. For example, you could get information about groups whose name contains a particular string. You can specify multiple values for a filter. A security group must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the group's name contains a particular string, and the group gives permission to another security group with a different string in its name). The result includes information for a particular group only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

Important

Filters are based on literal strings only. This is important to remember when you want to use filters to return only security groups with access allowed on a specific port number or numbers. For example, let's say you want to get all groups that have access on port 22. And let's say GroupA gives access on a range of ports using `fromPort=20` and `toPort=30`. If you filter with `ip-permission.from-port=22` or `ip-permission.to-port=22` (or both), GroupA will not be returned in the results. It will only be returned in the results if you specify `ip-permission.from-port=20` or `ip-permission.to-port=30` (or both).

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`description`	Description of the security group. Type: String
`group-id`	ID of the security group. Type: String
`group-name`	Name of the security group. Type: String
`ip-permission.cidr`	CIDR range that has been granted the permission. Type: String
`ip-permission.from-port`	Start of port range for the TCP and UDP protocols, or an ICMP type number. Type: String

Filter Name	Description
`ip-permission.group-name`	Name of security group that has been granted the permission. Type: String
`ip-permission.protocol`	IP protocol for the permission. Type: String Valid Values: `tcp` | `udp` | `icmp` or a protocol number
`ip-permission.to-port`	End of port range for the TCP and UDP protocols, or an ICMP code. Type: String
`ip-permission.user-id`	ID of AWS account that has been granted the permission. Type: String
`owner-id`	AWS account ID of the owner of the security group. Type: String
`tag-key`	Key of a tag assigned to the security group. Type: String
`tag-value`	Value of a tag assigned to the security group. Type: String

The short version of this command is **ec2dgrp**.

Syntax

```
ec2-describe-group [ec2_group_name_or_id | vpc_group_id ...] [[--filter
name=value] ...]
```

Options

Name	Description	Required
ec2_group_name_or_id or *vpc_group_id*	For EC2 security groups: the name or ID of the group. For VPC security groups: the ID of the group. Type: String Default: Describes all groups you own, or only those otherwise specified. Example: websrv	No

Name	Description	Required
`-F, --filter` *`name=value`*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all security groups you own, or only those otherwise specified. Example: --filter "group-name=*webserver*"	No

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("GROUP")
- Security group ID
- AWS account ID of security group owner
- Security group name
- Security group description
- Output type identifier ("PERMISSION")
- AWS account ID of the group owner
- Name of group granting permission
- Type of rule. Currently, only ALLOW rules are supported
- Protocol to allow
- Start of port range
- End of port range
- Source (for ingress rules) or destination (for egress rules)
- Any tags assigned to the security group

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example returns information about a specific EC2 security group called *StandardGroup*.

```
PROMPT> ec2-describe-group StandardGroup
GROUP   sg-1974436d     111122223333    StandardGroup      A standard EC2 group
PERMISSION      111122223333    StandardGroup      ALLOWS  tcp     80      80
     FROM    CIDR    102.11.43.32/32  ingress
```

Example Request

This example returns information about a specific VPC security group with ID sg-eea7b782.

```
PROMPT> ec2-describe-group sg-eea7b782
GROUP   sg-eea7b782     111122223333    WebServerSG     web servers     vpc-
5266953b
PERMISSION      111122223333    WebServerSG     ALLOWS  6       80      80
  FROM    CIDR    162.5.5.5/32    ingress
PERMISSION      111122223333    WebServerSG     ALLOWS  6       80      80
  FROM    USER    111122223333            ID sg-78a9b914  ingress
PERMISSION      111122223333    WebServerSG     ALLOWS  6       443     443
  FROM    USER    111122223333            ID sg-78a9b914  ingress
PERMISSION      111122223333    WebServerSG     ALLOWS  all
   TO      CIDR    0.0.0.0/0       egress
PERMISSION      111122223333    WebServerSG     ALLOWS  6       1433    1433
  TO      USER    111122223333            ID sg-80aebeec  egress
```

Example Request

This example returns information about all security groups that grant access over TCP specifically on port 22 from instances in either the `app_server_group` or `database_group`.

```
PROMPT> ec2-describe-group --filter "ip-permission.protocol=tcp"
--filter "ip-permission.from-port=22" --filter "ip-permission.to-port=22"
--filter "ip-permission.group-name=app_server_group" --filter "ip-permis
sion.group-name=database_group"
```

Related Operations

- ec2-create-group (p. 70)
- ec2-authorize (p. 37)
- ec2-revoke (p. 453)
- ec2-delete-group (p. 133)

ec2-describe-image-attribute

Description

Returns information about an attribute of an AMI. You can get information about only one attribute per call.

The short version of this command is **ec2dimatt**.

Syntax

```
ec2-describe-image-attribute ami_id {-l | -p | -B | --kernel | --ramdisk}
```

Options

Name	Description	Required
ami_id	The ID of the AMI for which an attribute will be described. Type: String Default: None Example: ami-4fa54026	Yes
-l, --launch-permission	Describes the launch permissions of the AMI. Type: String Default: None Example: -l	No
-p, --product-codes	Describes the product codes associated with the AMI. Each product code contains both a product code and a type. Type: String Default: None Example: -p	No
-B, --block-device-mapping	Describes the mapping that defines native device names to use when exposing virtual devices. Type: String Default: None Example: -B	No
--kernel	Describe the kernel ID the AMI will be launched with. Type: String Default: None Example: --kernel	No
--ramdisk	Describe the RAM disk ID the AMI will be launched with. Type: String Default: None Example: --ramdisk	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Attribute type identifier
- ID of the AMI
- Information about the attribute

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example lists the launch permissions for the ami-2bb65342 AMI

```
PROMPT> ec2-describe-image-attribute ami-2bb65342 -l
launchPermission ami-2bb65342 group all
launchPermission ami-2bb65342 userId 495219933132
```

Example Request

This example lists the product code for the ami-3bb65342 AMI.

```
PROMPT> ec2-describe-image-attribute ami-2bb65342 -p
productCodes ami-3bb65342 productCode [marketplace: a1b2c3d4e5f6g7h8i9j10k11]
```

Example Request

This example describes the RAM disk for the ami-d5ed03bc AMI, with the `--show-empty-fields` option.

```
PROMPT> ec2-describe-image-attribute ami-d5ed03bc --ramdisk --show-empty-fields
ramdisk ami-d5ed03bc    (nil)   ari-96c527ff
```

Related Operations

- ec2-describe-images (p. 211)
- ec2-modify-image-attribute (p. 379)
- ec2-reset-image-attribute (p. 438)

ec2-describe-images

Description

Returns information about AMIs, AKIs, and ARIs. Images available to you include public images, private images that you own, and private images owned by other AWS accounts but 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 `all` group. All AWS accounts have launch permissions for these AMIs.
explicit	The owner of the AMI granted launch permissions to a specific AWS account.
implicit	An AWS account has implicit launch permissions for all the AMIs it owns.

The list of AMIs returned can be modified by specifying AMI IDs, AMI owners, or AWS accounts with launch permissions. If no options are specified, Amazon EC2 returns all AMIs for which you have 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, an error 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 to which you have access are returned. The results can include the account IDs of the specified owners *`amazon`* for AMIs owned by Amazon, *`aws-marketplace`* for AMIs owned by AWS Marketplace, or *`self`* for AMIs that you own.

Note

For an overview of the AWS Marketplace, go to https://aws.amazon.com/marketplace/help/200900000. For details on how to use the AWS Marketplace, see AWS Marketplace.

If you specify a list of users with launch permissions, only AMIs with launch permissions for those users 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.

You can filter the results to return information only about images that match criteria you specify. For example, you could get information only about images that use a certain kernel. You can specify multiple values for a filter (e.g., the image uses either kernel aki-1a2b3c4d or kernel aki-9b8c7d6f). An image must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the image uses a certain kernel, and uses an Amazon EBS volume as the root device). The result includes information for a particular image only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`architecture`	Image architecture. Type: String Valid Values: `i386` | `x86_64`
`block-device-mapping.delete-on-termination`	Whether the Amazon EBS volume is deleted on instance termination. Type: Boolean
`block-device-mapping.device-name`	Device name (e.g., /dev/sdh) for an Amazon EBS volume mapped to the image. Type: String
`block-device-mapping.snapshot-id`	Snapshot ID for an Amazon EBS volume mapped to the image. Type: String
`block-device-mapping.volume-size`	Volume size for an Amazon EBS volume mapped to the image. Type: Integer
`description`	Description of the AMI (provided during image creation). Type: String
`image-id`	ID of the image. Type: String
`image-type`	Type of image. Type: String Valid Values: `machine` | `kernel` | `ramdisk`
`is-public`	Whether the image is public. Type: Boolean
`kernel-id`	Kernel ID. Type: String
`manifest-location`	Location of the image manifest. Type: String
`name`	Name of the AMI (provided during image creation). Type: String

Filter Name	Description
`owner-alias`	AWS account alias (e.g., `amazon`) Type: String
`owner-id`	AWS account ID of the image owner. Type: String
`platform`	To only list Windows-based AMIs, use `windows`. Otherwise leave blank. Type: String Valid Value: `windows`
`product-code`	Product code associated with the AMI. Type: String
`product-code.type`	Type of AMI product code. Type: String Valid Values: `devpay | marketplace`
`ramdisk-id`	RAM disk ID. Type: String
`root-device-name`	Root device name of the AMI (e.g., /dev/sda1). Type: String
`root-device-type`	Root device type the AMI uses. Type: String Valid Values: `ebs` | `instance-store`
`state`	State of the image. Type: String Valid Values: `available` | `pending` | `failed`
`state-reason-code`	Reason code for the state change. Type: String
`state-reason-message`	Message for the state change. Type: String
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String

Filter Name	Description
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`virtualization-type`	Virtualization type of the image. Type: String Valid Values: `paravirtual` | `hvm`
`hypervisor`	Hypervisor type of the image. Type: String Valid Values: `ovm` | `xen`

The short version of this command is **ec2dim**.

Syntax

```
ec2-describe-images [ami_id ...] [-a] [-o owner ...] [-x user_id ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
`ami_id`	AMI IDs to describe. Type: String Default: Returns all AMIs. Example: ami-78a54011	No
`-a, --all`	Describes all AMIs. Type: String Default: None Example: -a	No

Name	Description	Required
`-o, --owner` *owner*	Returns AMIs owned by the specified owner. Multiple owner options can be specified. The IDs `amazon`, `aws-marketplace`, and `self` can be used to include AMIs owned by Amazon, AMIs owned by AWS Marketplace, or AMIs owned by you, respectively. Type: String Default: None Valid Values: `amazon` | `aws-marketplace` | `self` | AWS account ID | `all` Example: -o self	No
`-x, --executable-by` *user_id*	Returns AMIs for which the specified user ID has explicit launch permissions. The user ID can be an AWS account ID, `self` to return AMIs for which the sender of the request has explicit launch permissions, or `all` to return AMIs with public launch permissions. Type: String Default: None Valid Values: `all` | `self` | AWS account ID Example: -x self	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: None Example: --filter "tag-value=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- IMAGE identifier
- Image ID
- Manifest location
- ID of the AWS account that registered the image (or "amazon")
- Image status (available, pending, failed)
- Image visibility (public or private)
- Product codes, if any, that are attached to the instance
- Image architecture (i386 or x86_64)
- Image type (machine, kernel, or ramdisk)
- ID of the kernel associated with the image (machine images only)
- ID of the RAM disk associated with the image (machine images only)

- Type of root device (ebs or instance-store)
- Virtualization type (paravirtual or hvm)
- BLOCKDEVICEMAPPING identifier for AMIs that use one or more Amazon EBS volumes
- Any tags assigned to the image
- Hypervisor type (xen or ovm)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the ami-be3adfd7 AMI.

```
PROMPT> ec2-describe-images ami-be3adfd7
IMAGE ami-78a54011 amazon/getting-started-with-ebs-boot amazon available
public  i386 machine aki-a13667e4 ari-a33667e6 ebs paravirtual xen
BLOCKDEVICEMAPPING /dev/sda1 snap-8eaf78e6 15
```

Example Request

This example filters the results to display only the public Windows images with an x86_64 architecture.

```
PROMPT> ec2-describe-images --filter "is-public=true" --filter "architec
ture=x86_64" --filter "platform=windows"
IMAGE   ami-dd20c3b4    ec2-public-windows-images/Server2003r2-x86_64-Win-
v1.07.manifest.xml    amazon  available       public          x86_64  machine
         windows instance-store  hvm  xen
IMAGE   ami-0535d66c    ec2-public-windows-images/SqlSvrStd2003r2-x86_64-Win-
v1.07.manifest.xml amazon  available       public          x86_64  machine
      windows instance-store  hvm  xen
...
```

Example Request

This example filters the results to display only images with an AWS Marketplace product code.

```
PROMPT> ec2-describe-images -F product-code.type=marketplace -o self
IMAGE   ami-987654321    089818748305/My MP Image        123456789101
available       private [marketplace: a1b2c3d4e5f6g7h8i9j10k11]        i386
 machine                        ebs     paravirtual   xen
BLOCKDEVICEMAPPING      /dev/sda1               snap-2de0d457   15      true
BLOCKDEVICEMAPPING      /dev/sdb                snap-27e0d45d   100     true
...
```

Related Operations

- ec2-describe-instances (p. 222)
- ec2-describe-image-attribute (p. 208)

ec2-describe-instance-attribute

Description

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

The short version of this command is **ec2dinatt**.

Syntax

```
ec2-describe-instance-attribute instance_id { --block-device-mapping |
--disable-api-termination | --group-id | --instance-initiated-shutdown-behavior
| --instance-type | --kernel | --product-codes | --ramdisk | --root-device-name
| | --source-dest-check | --user-data }
```

Options

Name	Description	Required
instance_id	The instance ID. Type: String Default: None Example: i-43a4412a	Yes
-b, --block-device-mapping	Describes the mapping that defines native device names to use when exposing virtual devices. Type: String Default: None Example: -b	No
--disable-api-termination	Whether the instance can be terminated using the EC2 API. A value of `true` means you can't terminate the instance using the API (i.e., the instance is "locked"); a value of `false` means you can. You must modify this attribute before you can terminate any "locked" instances using the API. Type: String Default: None Example: --disable-api-termination	No
-g, --group-id	Security groups the instance is in. Type: String Default: None Example: -g	No
-p, --product-codes	Product codes associated with an instance. Each product code includes a product code and type. Type: String Default: None Example: -p	No

Name	Description	Required
`--instance-initiated-shutdown-behavior`	If an instance shutdown is initiated, this determines whether the instance stops or terminates. Type: String Default: None Example: --instance-initiated-shutdown-behavior	No
`-t, --instance-type`	The instance type of the instance. Type: String Example: -t	No
`--kernel`	Describes the ID of the kernel associated with the AMI. Type: String Default: None Example: --kernel	No
`--ramdisk`	Describes the ID of the RAM disk associated with the AMI. Type: String Default: None Example: --ramdisk	No
`--root-device-name`	The root device name (e.g., /dev/sda1). Type: String Default: None Example: --root-device-name	No
`--source-dest-check`	This attribute exists to enable a Network Address Translation (NAT) instance in a VPC to perform NAT. The attribute controls whether source/destination checking is enabled on the instance. A value of `true` means checking is enabled, and `false` means checking is disabled. The value must be `false` for the instance to perform NAT. For more information, go to NAT Instances in the *Amazon Virtual Private Cloud User Guide*. Type: String Default: None Example: --source-dest-check	No
`--user-data`	User data made available to the instance. Type: String Default: None Example: --user-data	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Attribute type identifier
- ID of the instances
- Attribute or attribute list item value
- For a block device mapping, the returned information includes the BLOCKDEVICE identifier, the device name, the volume ID, and the timestamp

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example lists the kernel ID of the i-10a64379 instance.

```
PROMPT> ec2-describe-instance-attribute i-10a64379 --kernel
kernel i-10a64379 aki-f70657b2
```

Related Operations

- ec2-describe-instances (p. 222)
- ec2-modify-instance-attribute (p. 383)
- ec2-reset-instance-attribute (p. 441)

ec2-describe-instances

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, an error 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.

You can filter the results to return information only about instances that match criteria you specify. For example, you could get information about only instances launched with a certain key pair. You can specify multiple values for a filter (e.g., the instance was launched with either key pair A or key pair B). An instance must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the instance was launched with a certain key pair and uses an Amazon EBS volume as the root device). An instance must match *all* the filters for it to be included in the results. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`architecture`	Instance architecture. Type: String Valid Values: `i386` | `x86_64`
`availability-zone`	Instance's Availability Zone. Type: String
`block-device-mapping.attach-time`	Attach time for an Amazon EBS volume mapped to the instance, e.g., 2010-09-15T17:15:20.000Z Type: xsd:dateTime
`block-device-mapping.delete-on-termination`	Whether the Amazon EBS volume is deleted on instance termination. Type: Boolean
`block-device-mapping.device-name`	Device name (e.g., /dev/sdh) for an Amazon EBS volume mapped to the instance. Type: String
`block-device-mapping.status`	Status for an Amazon EBS volume mapped to the instance. Type: String Valid Values: `attaching` | `attached` | `detaching` | `detached`

Filter Name	Description
`block-device-mapping.volume-id`	ID for an Amazon EBS volume mapped to the instance. Type: String
`client-token`	Idempotency token you provided when you launched the instance. Type: String
`dns-name`	Public DNS name of the instance. Type: String
`group-id`	ID of a EC2 security group the instance is in. This filter does not work for VPC security groups (instead, use `instance.group-id`). Type: String
`group-name`	Name of a EC2 security group the instance is in. This filter does not work for VPC security groups (instead, use `instance.group-name`). Type: String
`image-id`	ID of the image used to launch the instance. Type: String
`instance-id`	ID of the instance. Type: String
`instance-lifecycle`	Whether this is a Spot Instance. Type: String Valid Values: `spot`
`instance-state-code`	Code identifying the instance's state. 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: Integer Valid Values: `0` (pending) | `16` (running) | `32` (shutting-down) | `48` (terminated) | `64` (stopping) | `80` (stopped)
`instance-state-name`	Instance's state. Type: String Valid Values: `pending` | `running` | `shutting-down` | `terminated` | `stopping` | `stopped`
`instance-type`	Type of instance (e.g., m1.small). Type: String

Filter Name	Description
`instance.group-id`	ID of a VPC security group the instance is in. This filter does not work for EC2 security groups (instead, use `group-id`). Type: String
`instance.group-name`	Name of a VPC security group the instance is in. This filter does not work for EC2 security groups (instead, use `group-name`). Type: String
`ip-address`	Public IP address of the instance. Type: String
`kernel-id`	Kernel ID. Type: String
`key-name`	Name of the key pair used when the instance was launched. Type: String
`launch-index`	When launching multiple instances at once, this is the index for the instance in the launch group (e.g., 0, 1, 2, etc.). Type: String
`launch-time`	Time instance was launched, e.g., 2010-08-07T11:54:42.000Z. Type: xsd:dateTime
`monitoring-state`	Whether monitoring is enabled for the instance. Type: String Valid Values: `disabled` | `enabled`
`owner-id`	AWS account ID of the instance owner. Type: String
`placement-group-name`	Name of the placement group the instance is in. Type: String
`platform`	Use `windows` if you have Windows based instances; otherwise, leave blank. Type: String Valid Value: `windows`
`private-dns-name`	Private DNS name of the instance. Type: String
`private-ip-address`	Private IP address of the instance. Type: String

Filter Name	Description
product-code	Product code associated with the AMI used to launch the instance. Type: String
product-code.type	Type of product code. Type: String Valid Values: devpay | marketplace
ramdisk-id	RAM disk ID. Type: String
reason	Reason for the instance's current state (e.g., shows "User Initiated [date]" when you stop or terminate the instance). Similar to the state-reason-code filter. Type: String
requester-id	ID of the entity that launched the instance on your behalf (e.g., AWS Management Console, Auto Scaling, etc.) Type: String
reservation-id	ID of the instance's reservation. A reservation ID is created any time you launch an instance. A reservation ID has a one-to-one relationship with an instance launch request, but can be associated with more than one instance if you launch multiple instances using the same launch request. For example, if you launch one instance, you'll get one reservation ID. If you launch ten instances using the same launch request, you'll also get one reservation ID. Type: String
root-device-name	Root device name of the instance (e.g., /dev/sda1). Type: String
root-device-type	Root device type the instance uses. Type: String Valid Values: ebs | instance-store
source-dest-check	Whether the instance performs source/destination checking. A value of true means checking is enabled, and false means checking is disabled. The value must be false for the instance to perform Network Address Translation (NAT) in your VPC. Type: Boolean
spot-instance-request-id	ID of the Spot Instance request. Type: String
state-reason-code	Reason code for the state change. Type: String

Filter Name	Description
`state-reason-message`	Message for the state change. Type: String
`subnet-id`	ID of the subnet the instance is in (if using Amazon Virtual Private Cloud). Type: String
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`virtualization-type`	Virtualization type of the instance. Type: String Valid Values: `paravirtual` | `hvm`
`vpc-id`	ID of the VPC the instance is in (if using Amazon Virtual Private Cloud). Type: String
`hypervisor`	Hypervisor type of the instance. Type: String Valid Values: `ovm` | `xen`

The short version of this command is **ec2din**.

Syntax

```
ec2-describe-instances [instance_id ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
instance_id	IDs of the instances to describe. Type: String Default: Returns all instances, or only those otherwise specified. Example: i-15a4417c	No
-F, --filter *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all instances you own or those you specify by ID. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
--region *REGION*	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the -U option. Default: The EC2_URL environment variable, or us-east-1 if the environment variable is not set. Example: --region eu-west-1
-U, --url *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The EC2_URL environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: -U https://ec2.amazonaws.com
-K, --private-key *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
--connection-timeout *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
--request-timeout *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45

Option	Description
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
-H, --headers	Displays column headers in the output.
--show-empty-fields	Shows empty columns as (nil).
--hide-tags	Do not display tags for tagged resources.
--debug	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
-?, --help, -h	Displays Help.
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -

Output

The command returns a table that contains the following information:

- Output type identifier ("RESERVATION")
- Reservation ID
- AWS account ID
- Name of each security group the instance is in (for instances not running in a VPC)
- Output type identifier ("INSTANCE")
- Instance ID for each running instance
- AMI ID of the image on which the instance is based
- Public DNS name associated with the instance. This is only present for instances in the running state.
- Private DNS name associated with the instance. This is only present for instances in the running state.
- Instance state
- Key name. If a key was associated with the instance at launch, its name will appear.
- AMI launch index
- Product codes attached to the instance
- Instance type
- Instance launch time
- Availability Zone
- Kernel ID
- RAM disk ID
- Monitoring state
- Public IP address
- Private IP address
- The tenancy of the instance (if the instance is running within a VPC). An instance with a tenancy of dedicated runs on single-tenant hardware.

- Subnet ID (if the instance is running in a VPC)
- VPC ID (if the instance is running in a VPC)
- Type of root device (ebs or instance-store)
- Placement group the cluster instance is in
- Virtualization type (paravirtual or hvm)
- IDs of each security group the instance is in (for instances running in a VPC)
- Any tags assigned to the instance
- Hypervisor type (xen or ovm)
- BLOCKDEVICE identifier for each Amazon EBS volume the instance is using, along with the device name, the volume ID, and the timestamp

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the current state of the instances owned by your AWS account.

```
PROMPT> ec2-describe-instances

RESERVATION     r-705d5818      111122223333    default
INSTANCE        i-53cb5b38      ami-b232d0db    ec2-184-73-10-99.compute-
1.amazonaws.com domU-12-31-39-00-A5-11.compute-1.internal        running
   0             m1.small 2010-04-07T12:49:28+0000 us-east-1a     aki-94c527fd
    ari-96c527ff            monitoring-disabled       184.73.10.99
10.254.170.223                  ebs   paravirtual  xen
BLOCKDEVICE     /dev/sda1       vol-a36bc4ca    2010-04-07T12:28:01.000Z
BLOCKDEVICE     /dev/sdb        vol-a16bc4c8    2010-04-07T12:28:01.000Z
RESERVATION     r-705d5818      111122223333    default
INSTANCE        i-39c85852      ami-b232d0db                    terminated
  gsg-keypair       0               m1.small        2010-04-07T12:21:21+0000
      us-east-1a      aki-94c527fd      ari-96c527ff            monitoring-
disabled                                ebs   paravirtual  xen
RESERVATION     r-9284a1fa      111122223333    default
INSTANCE        i-996fc0f2      ami-3c47a355    ec2-184-73-195-182.compute-
1.amazonaws.com domU-12-31-39-09-25-62.compute-1.internal      running keypair
    0               m1.small  2010-03-17T13:17:41+0000        us-east-1a
aki-a71cf9ce    ari-a51cf9cc     monitoring-disabled      184.73.195.182
10.210.42.144                   instance-store   paravirtual  xen
```

Example Request

This example filters the results to display only the m1.small or m1.large instances that have an Amazon EBS volume that is both attached and set to delete on termination.

```
PROMPT> ec2-describe-instances --filter "instance-type=m1.small" --filter "in
stance-type=m1.large" --filter "block-device-mapping.status=attached" --filter
 "block-device-mapping.delete-on-termination=true"
RESERVATION     r-bc7e30d7      111122223333    default
INSTANCE        i-c7cd56ad      ami-b232d0db    ec2-72-44-52-124.compute-
1.amazonaws.com       domU-12-31-39-01-76-06.compute-1.internal      running
```

```
       GSG_Keypair     0               m1.small        2010-08-17T01:15:16+0000
        us-east-1b  aki-94c527fd        ari-96c527ff             monitoring-
disabled   72.44.52.124    10.255.121.240                  ebs    paravirtual
 xen
BLOCKDEVICE     /dev/sda1       vol-a482c1cd    2010-08-17T01:15:26.000Z
```

Related Operations

- ec2-run-instances (p. 458)
- ec2-stop-instances (p. 470)
- ec2-start-instances (p. 467)
- ec2-terminate-instances (p. 473)

ec2-describe-instance-status

Description

Describes the status of an Amazon EC2 instance. Instance status has two main components:

- System Status reports impaired functionality that stems from issues related to the systems that support an instance, such as such as hardware failures and network connectivity problems. The `DescribeInstanceStatus` response elements report such problems as impaired reachability.
- Instance Status reports impaired functionality that arises from problems internal to the instance. The `DescribeInstanceStatus` response elements report such problems as impaired reachability.

Instance status provides information about the types of scheduled events for an instance that may require your attention:

- Scheduled Reboot: When Amazon EC2 determines that an instance must be rebooted, the instance's status will return one of two event codes: `system-reboot` or `instance-reboot`. System reboot commonly occurs if certain maintenance or upgrade operations require a reboot of the underlying host that supports an instance. Instance reboot commonly occurs if the instance must be rebooted, rather than the underlying host. Rebooting events include a scheduled start and end time.
- Scheduled System Maintenance: When Amazon EC2 determines that an instance requires maintenance which requires power or network impact, the instance's status will return an event code called `system-maintenance`. System-maintenance is either network maintenance or power maintenance. For network maintenance, your instance will experience a brief loss of network connectivity. For power maintenance, your instance will be unavailable for a brief period and then rebooted. System maintenance events include a scheduled start and end time. You will also be notified by email if one of your instances is set for system maintenance. The email message indicates when your instance is scheduled for maintenance.
- Scheduled Retirement: When Amazon EC2 determines that an instance must be shut down, the instance's status will return an event code called `instance-retirement`. Retirement commonly occurs when the underlying host is degraded and must be replaced. Retirement events include a scheduled start and end time. You will also be notified by email if one of your instances is set to retiring. The email message indicates when your instance will be permanently retired.

When your instance is retired, it will either be terminated (if its root device type is the instance-store) or stopped (if its root device type is an EBS volume). Instances stopped due to retirement will not be restarted, but you can do so manually. You can also avoid retirement of EBS-backed instances by manually restarting your instance when its event code is `instance-retirement`. This ensures that your instance is started on a different underlying host.

`DescribeInstanceStatus` returns information only for instances in the `running` state.

You can filter the results to return information only about instances that match criteria you specify. For example, you could get information about instances in a specific Availability Zone. You can specify multiple values for a filter (e.g., more than one Availability Zone). An instance must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the instance is in a specific Availability Zone and its status is set to `retiring`). An instance must match *all* the filters for it to be included in the results. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`availability-zone`	Instance's Availability Zone. Type: String
`event.code`	Code identifying the type of event. Type: String Valid Values: `instance-reboot` | `system-reboot` | `system-maintenance` | `instance-retirement`
`event.description`	A description of the event. Type: String
`event.not-after`	The latest end time for the scheduled event. Type: dateType
`event.not-before`	The earliest start time for the scheduled event. Type: dateType
`instance-state-name`	Intended state of the instance, e.g., running Type: String
`instance-state-code`	Code for intended state of the instance, e.g., 16. Type: Integer
`system-status.status`	The instance's system status. Type: String Valid Values: `ok` | `impaired` | `initializing` | `insufficient-data` | `not-applicable`
`system-status.reachability`	Filters on system status where the name is `reachability`. Type: String Valid Values: `passed` | `failed` | `initializing` | `insufficient-data`
`instance-status.status`	The instance's status. Type: String Valid Values: `ok` | `impaired` | `initializing` | `insufficient-data` | `not-applicable`
`instance-status.reachability`	Filters on instance status where the name is `reachability`. Type: String Valid Values: `passed` | `failed` |`initializing` | `insufficient-data`

The short version of this command is **ec2dins**.

Syntax

```
ec2-describe-instance-status [instance_id ...] [-I, --hide-healthy ...] [-A,
--include-all-instances ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
instance_id	Instance IDs to describe. Type: String Default: Returns all instances, or only those otherwise specified. Example: i-15a4417c	No
-I, --hide-healthy	Hide instances where all status checks pass.	No
-A, --include-all-instances	List all running and non-running instances.	No
-F, --filter *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all instances you own or those you specify by ID. Example: --filter "system-status.status=impaired"	No

Common Options

Option	Description
--region *REGION*	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the -U option. Default: The EC2_URL environment variable, or us-east-1 if the environment variable is not set. Example: --region eu-west-1
-U, --url *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The EC2_URL environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: -U https://ec2.amazonaws.com

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Instance ID for each running instance
- Availability Zone of each instance
- Instance state
- Instance state code
- System Status
- Instance Status

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the current state of the instances owned by your AWS account.

```
PROMPT> ec2-describe-instance-status

INSTANCE        i-6d9eaa0c      us-east-1d      running 16      running ok
  active
SYSTEMSTATUS    reachability    passed
INSTANCESTATUS  reachability    passed
INSTANCE        i-bf1d7cdc      us-east-1d      running 16      running ok
  active
SYSTEMSTATUS    reachability    passed
INSTANCESTATUS  reachability    passed
INSTANCE        i-bd1d7cde      us-east-1d      running 16      running ok
  active
SYSTEMSTATUS    reachability    passed
INSTANCESTATUS  reachability    passed
INSTANCE        i-831d7ce0      us-east-1d      running 16      running ok
  retiring        2012-01-02T10:00:00+0000
SYSTEMSTATUS    reachability    passed
INSTANCESTATUS  reachability    passed
EVENT   instance-stop   2012-01-02T10:00:00+0000                The instance
is running on degraded hardware
INSTANCE        i-6de0fb0e      us-east-1d      running 16      running ok
  retiring        2012-02-10T08:30:00+0000
SYSTEMSTATUS    reachability    passed
INSTANCESTATUS  reachability    passed
EVENT   instance-retiring   2012-02-10T08:30:00+0000              The instance
 is running on degraded hardware
INSTANCE        i-5cf7793e      us-east-1c      running 16      running ok
  retiring        2012-01-03T00:00:00+0000
SYSTEMSTATUS    reachability    passed
INSTANCESTATUS  reachability    passed
EVENT   instance-stop   2012-01-03T00:00:00+0000                The instance
is running on degraded hardware
```

Related Operations

- ec2-report-instance-status (p. 426)

ec2-describe-internet-gateways

Description

Gives you information about your Internet gateways. You can filter the results to return information only about Internet gateways that match criteria you specify. For example, you could get information only about gateways with particular tags. The Internet gateway must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the Internet gateway is attached to a particular VPC and is tagged with a particular value). The result includes information for a particular Internet gateway only if the gateway matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`attachment.state`	Current state of the attachment between the gateway and the VPC. Returned only if a VPC is attached. Type: String Valid Value: `available`
`attachment.vpc-id`	ID of an attached VPC. Type: String
`internet-gateway-id`	ID of the Internet gateway. Type: String
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

For more information about Amazon Virtual Private Cloud and Internet gateways, go to the Amazon Virtual Private Cloud User Guide.

The short version of this command is **ec2digw**.

Syntax

```
ec2-describe-internet-gateways [internet_gateway_id ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
internet_gateway_id	Internet gateway IDs to describe. Type: String Default: Returns all Internet gateways, or only those otherwise specified. Example: igw-15a4417c	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all Internet gateways you own or those you specify by ID. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("INTERNETGATEWAY")
- Internet Gateway ID
- Attachment type identifier ("ATTACHMENT")
- VPC ID (if the gateway is attached to a VPC)
- State of the attachment (attaching, attached, detaching, detached)
- Any tags assigned to the Internet gateway

Examples

Example Request

This example describes your Internet gateways.

```
PROMPT> ec2-describe-internet-gateways
INTERNETGATEWAY igw-dfa045b6
ATTACHMENT      vpc-d9a045b0    available
```

Related Operations

- ec2-create-internet-gateway (p. 77)
- ec2-delete-internet-gateway (p. 136)
- ec2-detach-internet-gateway (p. 25)
- ec2-detach-internet-gateway (p. 334)

ec2-describe-keypairs

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 your key pairs is returned.

You can filter the results to return information only about key pairs that match criteria you specify. For example, you could filter the results to return only the key pairs whose names include the string `Dave`. You can specify multiple values for a filter. A key pair must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the key pair name includes the string `Dave`, and the fingerprint equals a certain value). The result includes information for a particular key pair only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`fingerprint`	Fingerprint of the key pair. Type: String
`key-name`	Name of the key pair. Type: String

The short version of this command is **ec2dkey**.

Syntax

```
ec2-describe-keypairs [keypair_name ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
keypair_name	Name of the key pair to describe. Type: String Default: Describes all key pairs you own, or only those otherwise specified. Example: gsg-keypair	No

Name	Description	Required
`-F, --filter` *`name=value`*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all key pairs you own, or only those otherwise specified. Example: --filter "tag-name=*Dave*"	No

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- KEYPAIR identifier
- Key pair name
- Private key fingerprint

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the keypair with name gsg-keypair.

```
PROMPT> ec2-describe-keypairs gsg-keypair

KEYPAIR    gsg-keypair
00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
```

Example Request

This example filters the results to display only key pairs whose names include the string `Dave`.

```
PROMPT> ec2-describe-keypairs --filter "key-name=*Dave*"
```

Related Operations

- ec2-create-keypair (p. 79)
- ec2-import-keypair (p. 367)
- ec2-delete-keypair (p. 139)

ec2-describe-network-acls

Description

Gives you information about the network ACLs in your VPC.

You can filter the results to return information only about ACLs that match criteria you specify. For example, you could get information only for the ACL associated with a particular subnet. The ACL must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the ACL is associated with a particular subnet and has an egress entry that denies traffic to a particular port). The result includes information for a particular ACL only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`association.association-id`	ID of an association ID for the ACL. Type: String
`association.network-acl-id`	ID of the network ACL involved in the association. Type: String
`association.subnet-id`	ID of the subnet involved in the association. Type: String
`default`	Whether the ACL is the default network ACL in the VPC. Type: Boolean
`entry.cidr`	CIDR range specified in the entry. Type: String
`entry.egress`	Whether the entry applies to egress traffic. Type: Boolean
`entry.icmp.code`	The ICMP code specified in the entry, if any. Type: Integer
`entry.icmp.type`	The ICMP type specified in the entry, if any. Type: Integer
`entry.port-range.from`	Start of port range specified in the entry. Type: Integer
`entry.port-range.to`	End of port range specified in the entry. Type: Integer

Filter Name	Description
`entry.protocol`	Protocol specified in the entry. Type: String Valid Values: `tcp` | `udp` | `icmp` or a protocol number
`entry.rule-action`	Whether the entry allows or denies the matching traffic. Type: String Valid Values: `allow` | `deny`
`entry.rule-number`	Number of an entry (i.e., rule) in the ACL's set of entries. Type: Integer
`network-acl-id`	ID of the network ACL. Type: String
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`vpc-id`	The ID of the VPC the network ACL is in. Type: String

For more information about Amazon Virtual Private Cloud and network ACLs, go to Network ACLs in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2dnacl**.

Syntax

```
ec2-describe-network-acls [network_acl_id...] [[--filter name=value] ...]
```

Options

Name	Description	Required
network_acl_id	Network ACL IDs to describe. Type: String Default: Describes all network ACLs in the VPC, or only those otherwise specified. Example: acl-7aa34613	No
-F, --filter *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all network ACLs in the VPC, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
--region *REGION*	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the -U option. Default: The EC2_URL environment variable, or us-east-1 if the environment variable is not set. Example: --region eu-west-1
-U, --url *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The EC2_URL environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: -U https://ec2.amazonaws.com
-K, --private-key *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("NETWORKACL, ENTRY, ASSOCIATION")
- The network ACL's ID, the VPC ID the ACL is in, and whether the ACL is the default ACL in the VPC
- The entries (i.e., rules) contained in the ACL
- Associations between the ACL and any subnets
- Any tags assigned to the ACL

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes all the network ACLs in your VPC.

```
PROMPT> ec2-describe-network-acls
NETWORKACL      acl-5566953c    vpc-5266953b    default
ENTRY   egress  100     allow   0.0.0.0/0       all
ENTRY   egress  32767   deny    0.0.0.0/0       all
ENTRY   ingress 100     allow   0.0.0.0/0       all
```

```
ENTRY   ingress 32767   deny    0.0.0.0/0       all
NETWORKACL      acl-5d659634    vpc-5266953b
ENTRY   egress  110     allow   0.0.0.0/0       6   49152   65535
ENTRY   egress  32767   deny    0.0.0.0/0       all
ENTRY   ingress 110     allow   0.0.0.0/0       6   80      80
ENTRY   ingress 120     allow   0.0.0.0/0       6   443     443
ENTRY   ingress 32767   deny    0.0.0.0/0       all
ASSOCIATION     aclassoc-5c659635       subnet-ff669596
ASSOCIATION     aclassoc-c26596ab       subnet-f0669599
```

Related Operations

- ec2-create-network-acl (p. 82)
- ec2-delete-network-acl (p. 141)
- ec2-replace-network-acl-association (p. 413)
- ec2-create-network-acl-entry (p. 85)
- ec2-delete-network-acl-entry (p. 143)
- ec2-replace-network-acl-entry (p. 416)

ec2-describe-network-interfaces

Description

Gives you information about one or more network interfaces. The NETWORKINTERFACE parameters, if specified, are the IDs of the network interfaces to describe.

The short version of this command is **ec2dnic**.

You can filter the results to return information only about network interfaces that match criteria you specify. For example, you could get information about only network interfaces launched in a specific Availability Zone. You can specify multiple values for a filter (e.g., more than one Availability Zone). A network interface must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the network interface is in a specific Availability Zone, and its owner ID matches a specific owner ID). A network interface must match all the filters for it to be included in the results. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`association.association-id`	The association ID returned when the network interface was associated with an IP address. Type: String
`association.allocation-id`	The allocation ID that AWS returned when you allocated the Elastic IP address for your network interface. Type: String
`association.ip-owner-id`	The owner of the Elastic IP address associated with the network interface. Type: String
`association.public-ip`	The address of the Elastic IP address bound to the network interface. Type: String
`attachment.attachment-id`	The ID of the interface attachment. Type: String
`attachment.instance-id`	The ID of the instance to which the network interface is attached. Type: String
`attachment.instance-owner-id`	The owner ID of the instance to which the network interface is attached. Type: String

Filter Name	Description
`attachment.device-index`	The device index to which the network interface is attached. Type: Integer
`attachment.status`	The status of the attachment. Type: String Valid values: `attaching | attached | detaching | detached`
`attachment.attach.time`	The time that the network interface was attached to an instance. Type: Date
`attachment.delete-on-termination`	Indicates whether or not the attachment is deleted when an instance is terminated. Type: Boolean
`availability-zone`	Availability Zone of the network interface. Type: String
`description`	The description of the network interface. Type: String
`group-id`	ID of a VPC security group associated with the network interface. Type: String
`group-name`	Name of a VPC security group associated with the network interface. Type: String
`mac-address`	The MAC address of the network interface. Type: String
`network-interface-id`	The ID of the network interface. Type: String
`owner-id`	The AWS account ID of the network interface owner. Type: String
`private-ip-address`	The private IP address of the network interface. Type: String
`private-dns-name`	The private DNS name of the network interface. Type: String
`requester-id`	ID of the entity that launched the instance on your behalf (e.g., AWS Management Console, Auto Scaling, etc.). Type: String

Filter Name	Description
`requester-managed`	Indicates whether the network interface is being managed by an AWS service (e.g., AWS Management Console, Auto Scaling, etc). Type: Boolean
`source-dest-check`	Whether the network interface performs source/destination checking. A value of `true` means checking is enabled, and `false` means checking is disabled. The value must be `false` for the network interface to perform Network Address Translation (NAT) in your VPC. Type: Boolean
`status`	The status of the network interface. If the network interface is not attached to an instance, the status shows `available`; if a network interface is attached to an instance the status shows `in-use`. Type: String Valid values: `available | in-use`
`subnet-id`	The ID of the subnet that the network interface is in. Type: String
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

Filter Name	Description
vpc-id	The ID of the VPC that the network interface is in. Type: String

Syntax

```
ec2-describe-network-interfaces --filter FILTER
```

Options

Name	Description	Required
-F, --filter name=value	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: None Example: -F "description=My ENI"	No

Common Options

Option	Description
--region *REGION*	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the -U option. Default: The EC2_URL environment variable, or us-east-1 if the environment variable is not set. Example: --region eu-west-1
-U, --url *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The EC2_URL environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: -U https://ec2.amazonaws.com
-K, --private-key *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the EC2_PRIVATE_KEY environment variable. Example: -K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem
-C, --cert *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the EC2_CERT environment variable. Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command lists information about the specified network interfaces.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example lists all network interfaces that you own.

```
PROMPT> ec2-describe-network-interfaces

NETWORKINTERFACE        eni-dc7f84b5            subnet-8404ffed vpc-8004ffe9
  us-east-1b      089818748305            false   in-use  02:1a:81:a9:56:27
    10.0.1.187              true
    GROUP   sg-8ea1bce2     default
    GROUP   sg-94a1bcf8     ACK
    ATTACHMENT      i-640a3c17      eni-attach-dc34d1b5     attached
false
    ASSOCIATION
    NETWORKINTERFACE        eni-b35da6da    My ENI          subnet-8404ffed vpc-
8004ffe9    us-east-1b      089818748305            false   in-use
```

```
02:1a:81:b6:63:60       10.0.1.129              true
    GROUP   sg-8ea1bce2     default
    ATTACHMENT      i-640a3c17      eni-attach-673dd80e     attached
false
    ASSOCIATION
```

This example lists specified network interfaces.

```
PROMPT> ec2-describe-network-interfaces -F "description=My ENI"

NETWORKINTERFACE        eni-b35da6da    My ENI        subnet-8404ffed vpc-
8004ffe9    us-east-1b      089818748305            false   in-use
02:1a:81:b6:63:60       10.0.1.129              true
    GROUP   sg-8ea1bce2     default
    ATTACHMENT      i-640a3c17      eni-attach-673dd80e     attached
false
    ASSOCIATION
```

Related Operations

- ec2-create-network-interface (p. 89)
- ec2-delete-network-interface (p. 146)
- ec2-describe-network-interface-attribute (p. 254)
- ec2-attach-network-interface (p. 28)
- ec2-detach-network-interface (p. 337)
- ec2-modify-network-interface-attribute (p. 387)
- ec2-reset-network-interface-attribute (p. 444)

ec2-describe-network-interface-attribute

Description

Describes a network interface attribute. Only one attribute can be specified per call.

The short version of this command is **ec2dnicatt**.

Syntax

```
ec2-describe-network-interface-attribute NETWORKINTERFACE -d, --description
--source-dest-check --group-set -a, --attachment
```

Options

Name	Description	Required
-d, --description	Get the description of the network interface. Type: String	Yes
--source-dest-check	Gets whether to enable the source/dest check on traffic through this network interface. Type: String	Yes
--group-set	Get the security groups for the network interface. Type: String	Yes
-a, --attachment	Get the attachment (if any) of the network interface. Type: String	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the specified network interface attribute.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example lists the network interface's description.

```
PROMPT> ec2-describe-network-interface-attribute eni-b35da6da -d
NETWORKINTERFACE        eni-b35da6da    description
    DESCRIPTION     My ENI
```

This example enables source/destination checking on traffic across the specified network interface.

```
PROMPT> ec2-describe-network-interface-attribute eni-b35da6da --source-dest-
check
NETWORKINTERFACE        eni-b35da6da    sourceDestCheck
    SOURCEDESTCHECK true
```

This example lists the security groups for the specified network interface.

```
PROMPT> ec2-describe-network-interface-attribute eni-b35da6da --group-set
NETWORKINTERFACE        eni-b35da6da    group
    GROUP   sg-8ea1bce2     default
```

Related Operations

- ec2-create-network-interface (p. 89)
- ec2-delete-network-interface (p. 146)
- ec2-describe-network-interfaces (p. 248)
- ec2-attach-network-interface (p. 28)
- ec2-detach-network-interface (p. 337)
- ec2-modify-network-interface-attribute (p. 387)
- ec2-reset-network-interface-attribute (p. 444)

ec2-describe-placement-groups

Description

Returns information about placement groups in your account. For more information about placement groups and cluster instances, go to Using Cluster Instances in the *Amazon Elastic Compute Cloud User Guide*.

You can filter the results to return information only about placement groups that match criteria you specify. For example, you could filter the results to return only the groups whose state is `deleted`. You can specify multiple values for a filter. A placement group must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the group's state is `deleted` and the name includes the string `Project`). The result includes information for a particular group only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`group-name`	Name of the placement group. Type: String
`state`	Placement group's state. Type: String Valid Values: `pending` | `available` | `deleting` | `deleted`
`strategy`	Placement group's strategy. Type: String Valid Value: `cluster`

The short version of this command is **ec2dpgrp**.

`ec2-describe-placement-groups [`*`group_name`*`] [[--filter `*`name`*`=`*`value`*`] ...]`

Options

Name	Description	Required
`group_name`	The name of the placement group. Type: String Default: Describes all placement groups you own, or only those otherwise specified. Example: XYZ-cluster	No

Name	Description	Required
-F, --filter name=value	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all placement groups you own, or only those otherwise specified. Example: --filter "group-name=*Project*"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the following information:

- PLACEMENTGROUP identifier
- Placement group name
- Placement group strategy
- Placement group status (e.g., pending, available, deleting, deleted)

Examples

Example Request

This example describes all your placement groups.

```
PROMPT> ec2-describe-placement-groups
PLACEMENTGROUP  XYZ-cluster  cluster  available
PLACEMENTGROUP  ABC-cluster  cluster  available
```

Example Request

This example filters the results to display only placement groups that include the string `Project` in the name.

```
PROMPT> ec2-describe-placement-groups --filter "group-name=*Project*"
```

Related Operations

- ec2-create-placement-group (p. 92)
- ec2-delete-placement-group (p. 148)

ec2-describe-regions

Description

Describes Regions that are currently available to the account.

You can use filters with this call just as you can with other "describe" calls.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`endpoint`	Region's endpoint (e.g., ec2.us-east-1.amazonaws.com). Type: String
`region-name`	Name of the Region. Type: String

The short version of this command is **ec2dre**.

Syntax

```
ec2-describe-regions [region...] [[--filter name=value] ...]
```

Options

Name	Description	Required
region	Name of a Region. Type: String Default: Describes all Regions, or only those otherwise specified. Example: eu-west-1	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all Regions, or those otherwise specified. Example: --filter "endpoint=*ap*"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- REGION identifier
- Region name
- Service endpoint to which you make requests

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example displays information about all the Regions that are available to the account.

```
PROMPT> ec2-describe-regions
REGION  ap-northeast-1       ec2.ap-northeast-1.amazonaws.com
REGION  ap-southeast-1       ec2.ap-southeast-1.amazonaws.com
..
```

Example Request

This example displays information about all Regions that have the string `ap` in the endpoint.

```
PROMPT> ec2-describe-regions --filter "endpoint=*ap*"
REGION  ap-southeast-1       ec2.ap-southeast-1.amazonaws.com
```

Related Operations

- ec2-describe-availability-zones (p. 182)
- ec2-run-instances (p. 458)

ec2-describe-reserved-instances

Description

Describes Reserved Instances that you purchased.

Starting with the 2011-11-01 API version, AWS expanded its offering for Amazon EC2 Reserved Instances to address a range of projected instance use. There are three types of Reserved Instances based on customer utilization levels: *Heavy Utilization*, *Medium Utilization*, and *Light Utilization*. The Medium Utilization offering type is equivalent to the Reserved Instance offering available before API version 2011-11-01. If you are using tools that predate the 2011-11-01 API version, you only have access to the *Medium Utilization* Reserved Instance offering type.

For more information about Reserved Instances, see Reserved Instances in the *Amazon Elastic Compute Cloud User Guide*.

You can filter the results to return information about Reserved Instances that matches criteria you specify. For example, you could get information about Reserved Instances in a particular Availability Zone. Or you can specify multiple values for a filter. A Reserved Instance must match at least one of the specified values for it to be included in the results.

You can specify multiple filters as well. For example, you could specify that your Reserved Instance must be in a particular Availability Zone and must be tagged with a particular value. The result includes information for a particular instance only if it matches *all* of your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`availability-zone`	Availability Zone where the Reserved Instance can be used. Type: String
`duration`	Duration of the Reserved Instance (one year or three years), in seconds. Type: xs:long Valid Values: `31536000` | `94608000`
`fixed-price`	Purchase price of the Reserved Instance (e.g., `9800.0`) Type: xs:double
`instance-type`	Instance type on which the Reserved Instance can be used. Type: String
`product-description`	Reserved Instance description. Type: String Valid Values: `Linux/UNIX` | `Linux/UNIX (Amazon VPC)` | `Windows` | `Windows (Amazon VPC)`
`reserved-instances-id`	Reserved Instance's ID. Type: String

Filter Name	Description
`start`	Time the Reserved Instance purchase request was placed, e.g., 2010-08-07T11:54:42.000Z. Type: xsd:dateTime
`state`	State of the Reserved Instance. Type: String Valid Values: `pending-payment` | `active` | `payment-failed` | `retired`
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`usage-price`	Usage price of the Reserved Instance, per hour (e.g., `0.84`) Type: xs:double

The short version of this command is **ec2dri**.

Syntax

```
ec2-describe-reserved-instances [reservation_id ...] [[--filter name=value]
...]
```

Options

Name	Description	Required
reservation_id	IDs of the Reserved Instance to describe. Type: String Default: Describes all your Reserved Instances, or only those otherwise specified. Example: 4b2293b4-5813-4cc8-9ce3-1957fc1dcfc8	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all Reserved Instances you own, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45

Option	Description
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
-H, --headers	Displays column headers in the output.
--show-empty-fields	Shows empty columns as (nil).
--hide-tags	Do not display tags for tagged resources.
--debug	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
-?, --help, -h	Displays Help.
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -

Output

The command returns a table that contains the following information:

- RESERVEDINSTANCES identifier
- ID of the Reserved Instance
- The Availability Zone in which the Reserved Instance can be used
- The instance type
- The Reserved Instance description (Linux/UNIX, Windows, Linux/UNIX (Amazon VPC), or Windows (Amazon VPC))
- The duration of the Reserved Instance
- The usage price of the Reserved Instance, per hour
- The purchase price of the Reserved Instance
- The number of Reserved Instances purchased
- The state of the Reserved Instance purchase (payment-pending, active, payment-failed)
- Any tags assigned to the Reserved Instance
- The tenancy of the reserved instance purchased. An instance with a tenancy of dedicated runs on single-tenant hardware.
- The instance offering type
- The currency of the Reserved Instance purchased. It's specified using ISO 4217 standard code (e.g., USD, JPY).

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes Reserved Instances owned by your account.

```
PROMPT> ec2-describe-reserved-instances
RESERVEDINSTANCES    1ba8e2e3-2538-4a35-b749-1f4442d50744    us-east-1a
m1.small    Linux/UNIX    3y    0.03    350.0    1    2009-03-13T16:01:39+0000
    payment-pending
RESERVEDINSTANCES    af9f760e-c1c1-449b-8128-1342d3a6927d    us-east-1d
m1.xlarge    Linux/UNIX    1y    0.24    1820.0    1    2009-03-13T16:01:39+0000
    active
```

Example Request

This example filters the results to display only one-year, m1.small Linux/UNIX Reserved Instances. If you want Linux/UNIX Reserved Instances specifically for use with Amazon VPC, set the product descripton to `Linux/UNIX (Amazon VPC)`.

```
PROMPT> ec2-describe-reserved-instances --filter "duration=31536000" --filter
"instance-type=m1.small" --filter "product-description=Linux/UNIX"
```

Related Operations

- ec2-purchase-reserved-instances-offering (p. 399)
- ec2-describe-reserved-instances-offerings (p. 268)

ec2-describe-reserved-instances-offerings

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.

Starting with the 2011-11-01 API version, AWS expanded its offering of Amazon EC2 Reserved Instances to address a range of projected instance use. There are three types of Reserved Instances based on customer utilization levels: *Heavy Utilization*, *Medium Utilization*, and *Light Utilization*. You determine the type of the Reserved Instance offering by including the optional *`offering-type`* parameter when calling `ec2-describe-reserved-instances-offerings`. The Medium Utilization offering type is equivalent to the Reserved Instance offering available before API version 2011-11-01. If you are using tools that predate the 2011-11-01 API version, `ec2-describe-reserved-instances-offerings` will only list information about the `Medium Utilization` Reserved Instance offering type.

For more information about Reserved Instances, go to Reserved Instances in the *Amazon Elastic Compute Cloud User Guide*.

Our policy is to provide filters for all *describe* calls so you can limit the results to your specified criteria. Therefore, you can use filters to limit the results when describing Reserved Instances offerings, even though you can use the regular request parameters to do something similar.

For example, you could use the regular request parameters or a filter to get the offerings for a particular instance type. You can specify multiple request parameters or multiple filters (e.g., limit the results to the m2.xlarge instance type, and only for Windows instances). The result includes information for a particular offering only if it matches *all* your request parameters or filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`availability-zone`	Availability Zone where the Reserved Instance can be used. Type: String
`duration`	Duration of the Reserved Instance (e.g., one year or three years), in seconds. Type: xs:long Valid Values: `31536000` | `94608000`
`fixed-price`	Purchase price of the Reserved Instance (e.g., `9800.0`) Type: xs:double
`instance-type`	Instance type on which the Reserved Instance can be used. Type: String

Filter Name	Description
`product-description`	Reserved Instance description. Type: String Valid Values: `Linux/UNIX` | `Linux/UNIX (Amazon VPC)` | `Windows` | `Windows (Amazon VPC)`
`reserved-instances-offering-id`	Reserved Instances offering ID. Type: String
`usage-price`	Usage price of the Reserved Instance, per hour (e.g., `0.84`) Type: xs:double

The short version of this command is **ec2drio**.

Syntax

ec2-describe-reserved-instances-offerings [*offering_id* ...] [--type *instance_type* ...] [--offering-type *offering*] [--availability-zone *zone* ...] [--description *description* ...] [[--filter *name*=*value*] ...] [--tenancy *tenancy*]

Options

Name	Description	Required
offering_id	ID of a Reserved Instance offering. Type: String Default: None Example: 438012d3-4967-4ba9-aa40-cbb1d13235e0	No
`-t, --type` *instance_type*	The instance type on which the Reserved Instance can be used. Type: String Default: None Example: -t m1.small	No
`--offering-type` *offering-type*	The Reserved Instance offering type. Type: String Default: None Valid Values: `"Heavy Utilization"` | `"Medium Utilization"` | `"Light Utilization"` Example: --offering-type "Medium Utilization"	No
`-z, --availability-zone` *zone*	The Availability Zone in which the Reserved Instance can be used. Type: String Default: None Example: -z us-east-1a	No

Name	Description	Required
`-d, --description` *description*	The Reserved Instance description. Instances that include `(Amazon VPC)` in the description are for use with Amazon VPC. Type: String Default: None Valid Values: `Linux/UNIX` | `Linux/UNIX (Amazon VPC)` | `Windows` | `Windows (Amazon VPC)` Example: -d Linux/UNIX	No
`-F, --filter FILTER` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all Reserved Instances offerings, or those otherwise specified. Example: --filter "instance-type=m1.small"	No
`--tenancy TENANCY`	Specifies the tenancy of the Reserved Instance offering. A Reserved Instance with tenancy of dedicated will run on single-tenant hardware and can only be launched within a VPC. Type: String Default: default Valid Values: default | dedicated	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- OFFERING identifier
- ID of the offer
- The instance type
- The Availability Zone in which the Reserved Instance can be used
- The duration of the Reserved Instance
- The purchase price of the Reserved Instance
- The usage price of the Reserved Instance, per hour
- The Reserved Instance description (Linux/UNIX, Windows, Linux/UNIX (Amazon VPC), or Windows (Amazon VPC))
- The tenancy of the Reserved Instance.
- The currency of the Reserved Instance. It's specified using ISO 4217 standard (e.g., USD, JPY). At this time, the only supported currency is USD.
- The instance offering type

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes available Reserved Instance offerings in the us-east-1 Availability Zone.

```
PROMPT> ec2-describe-reserved-instances-offerings --region us-east-1 -H
Type ReservedInstancesOfferingId AvailabilityZone InstanceType Duration Fixed
Price UsagePrice ProductDescription Currency InstanceTenancy OfferingType
OFFERING 248e7b75-c83a-48c1-bcf7-b7f03e9c43fe us-east-1b c1.medium 3y  700.0
0.06 Linux/UNIX (Amazon VPC) USD default Medium Utilization
OFFERING 3a98bf7d-05c0-40d0-a173-81a3986ba568 us-east-1b c1.medium 3y  700.0
0.125 Windows USD default Medium Utilization
OFFERING 4b2293b4-ff40-4a1a-9fef-1f12ad37a711 us-east-1b c1.medium 3y  700.0
0.06 Linux/UNIX USD default Medium Utilization
...
OFFERING 4b2293b4-b3c5-4ad1-b7f5-b7832ecd6d63 us-east-1d m1.xlarge 3y  3600.0
0.0 Linux/UNIX USD default Heavy Utilization
...
OFFERING 649fd0c8-efd6-4800-a7f3-0a9f1c3ea2c1 us-east-1d m2.xlarge 1y  1000.0
0.5 Linux/UNIX USD default Light Utilization
...
```

Example Request

This example filters the results to display only one-year, m1.small or m1.large Linux/UNIX Reserved Instances. If you want Linux/UNIX Reserved Instances specifically for use with Amazon VPC, set the product descripton to `Linux/UNIX (Amazon VPC)`.

```
PROMPT> ec2-describe-reserved-instances-offerings --filter "duration=31536000"
 --filter "instance-type=m1.small" --filter "instance-type=m1.large" --filter
"product-description=Linux/UNIX" -H
Type ReservedInstancesOfferingId AvailabilityZone InstanceType Duration Fixed
Price UsagePrice ProductDescription Currency InstanceTenancy OfferingType
OFFERING 649fd0c8-7d25-4e81-959e-0e1bc9410a87 us-east-1c m1.large 1y  910.0
0.12 Linux/UNIX USD default Medium Utilization
OFFERING 438012d3-278f-4ad6-9cb9-e23188dafcf5 us-east-1b m1.large 1y  910.0
0.12 Linux/UNIX USD default Medium Utilization
OFFERING 4b2293b4-20f5-4b3d-9969-46341f34b03c us-east-1d m1.large 1y  910.0
0.12 Linux/UNIX USD default Medium Utilization
OFFERING 3a98bf7d-abc6-47a0-870e-e245903ddf6a us-east-1a m1.large 1y  910.0
0.12 Linux/UNIX USD default Medium Utilization
OFFERING ceb6a579-757c-474b-b09b-52c84b605767 us-east-1c m1.small 1y  227.5
0.03 Linux/UNIX USD default Medium Utilization
OFFERING 60dcfab3-06bb-4b68-9503-53bf89823b5e us-east-1b m1.small 1y  227.5
0.03 Linux/UNIX USD default Medium Utilization
OFFERING 438012d3-80c7-42c6-9396-a209c58607f9 us-east-1d m1.small 1y  227.5
0.03 Linux/UNIX USD default Medium Utilization
OFFERING 649fd0c8-5d76-4881-a522-fe5224c10fcc us-east-1a m1.small 1y  227.5
0.03 Linux/UNIX USD default Medium Utilization
...
```

Related Operations

- ec2-purchase-reserved-instances-offering (p. 399)
- ec2-describe-reserved-instances (p. 263)

ec2-describe-route-tables

Description

Gives you information about your route tables. You can filter the results to return information only about tables that match criteria you specify. For example, you could get information only about a table associated with a particular subnet. You can specify multiple values for the filter. The table must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the table has a particular route, and is associated with a particular subnet). The result includes information for a particular table only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`association.route-table-association-id`	ID of an association ID for the route table. Type: String
`association.route-table-id`	ID of the route table involved in the association. Type: String
`association.subnet-id`	ID of the subnet involved in the association. Type: String
`association.main`	Whether the route table is the main route table in the VPC. Type: Boolean
`route-table-id`	ID of the route table. Type: String
`route.destination-cidr-block`	CIDR range specified in a route in the table. Type: String
`route.gateway-id`	ID of a gateway specified in a route in the table. Type: String
`route.instance-id`	ID of an instance specified in a route in the table. Type: String
`route.state`	State of a route in the route table. The `blackhole` state indicates that the route's target isn't available (e.g., the specified gateway isn't attached to the VPC, the specified NAT instance has been terminated, etc.). Type: String Valid Values: `active` | `blackhole`

Filter Name	Description
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`vpc-id`	The ID of the VPC the route table is in. Type: String

For more information about Amazon Virtual Private Cloud and route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2drtb**.

Syntax

```
ec2-describe-route-tables [route_table_id...]
```

Options

Name	Description	Required
`route_table_id`	IDs of the route tables to describe. Type: String Default: Returns all route tables, or only those otherwise specified. Example: rtb-7aa34613	No

Name	Description	Required
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all route tables in the VPC, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.

Option	Description
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ROUTETABLE)
- The route table's ID
- ID of the VPC the route table is in
- Output type identifier ("ROUTE")
- The route's forwarding target (gateway or NAT instance)
- The route's state (active or blackhole). Blackhole means the route's forwarding target isn't available (e.g., the gateway is detached, the NAT instance is terminated)
- The route's destination CIDR range
- Output type identifier ("ASSOCIATION")
- The association ID representing the association of the route table to a subnet (or to the VPC if it's the main route table)
- Any tags assigned to the route table
- Network interfaces associated with the route.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the route table with ID rtb-6aa34603.

```
PROMPT> ec2-describe-route-tables rtb-6aa34603
ROUTETABLE rtb-6aa34603 vpc-9ea045f7
ROUTE local  active 10.0.0.0/22
ROUTE igw-68a34601  active 0.0.0.0/0
ASSOCIATION rtbassoc-61a34608     subnet-92a045fb
```

Related Operations

- ec2-associate-route-table (p. 22)
- ec2-disassociate-route-table (p. 348)
- ec2-delete-route-table (p. 153)
- ec2-replace-route-table-association (p. 423)

ec2-describe-snapshot-attribute

Description

Returns information about an attribute of a snapshot. You can get information about only one attribute per call.

The short version of this command is **ec2dsnapatt**.

Syntax

```
ec2-describe-snapshot-attribute snapshot_id attribute
```

Options

Name	Description	Required
snapshot_id	The ID of the Amazon EBS snapshot. Type: String Default: None Example: snap-78a54011	Yes
-c, --create-volume-permission	Describes the create volume permissions of the snapshot. Type: String Default: None Example: -c	Conditional
-p, --product-codes	A list of product codes associated with the snapshot. Each product code contains a product code and a type. Type: String Default: None Example: -p	Conditional

Common Options

Option	Description
--region *REGION*	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the -U option. Default: The EC2_URL environment variable, or us-east-1 if the environment variable is not set. Example: --region eu-west-1

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Attribute type identifier
- ID of the snapshot
- Attribute value

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes permissions for the snap-7ddb6e14 snapshot.

```
PROMPT> ec2-describe-snapshot-attribute snap-7ddb6e14 -c
createVolumePermission snap-7ddb6e14 userId 123456789012
```

Related Operations

- ec2-modify-snapshot-attribute (p. 391)
- ec2-describe-snapshots (p. 282)
- ec2-reset-snapshot-attribute (p. 446)
- ec2-create-snapshot (p. 101)

ec2-describe-snapshots

Description

Returns information about Amazon EBS snapshots available to you. Snapshots available to you include public snapshots available for any AWS account to launch, private snapshots you own, and private snapshots owned by another AWS account but for which you've been given 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 AWS accounts have create volume permissions for these snapshots.
explicit	The owner of the snapshot granted create volume permissions to a specific AWS account.
implicit	An AWS account has implicit create volume permissions for all snapshots it owns.

The list of snapshots returned can be modified by specifying snapshot IDs, snapshot owners, or AWS accounts with create volume permissions. If no options are specified, Amazon EC2 returns all snapshots for which you have 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, an error 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 snapshots with create snapshot permissions for those users 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.

Tip

Use the `--help` option to view examples of ways to use this command.

You can filter the results to return information only about snapshots that match criteria you specify. For example, you could get information about snapshots whose status is `pending`. You can specify multiple values for a filter (e.g., the snapshot's status is either `pending` or `completed`). A snapshot must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the snapshot's status is `pending`, and it is tagged with a particular value). The result includes information for a particular snapshot only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`description`	Description of the snapshot. Type: String
`owner-alias`	The AWS account alias (e.g., `amazon`) that owns the snapshot. Type: String
`owner-id`	ID of the AWS account that owns the snapshot. Type: String
`progress`	The progress of the snapshot, in percentage (e.g., `80%`). Type: String
`snapshot-id`	Snapshot ID. Type: String
`start-time`	Time stamp when the snapshot was initiated. Type: xsd:dateTime
`status`	Status of the snapshot. Type: String Valid Values: `pending` | `completed` | `error`
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`volume-id`	ID of the volume the snapshot is for. Type: String
`volume-size`	The size of the volume, in GiB (e.g., `20`). Type: String

The short version of this command is **ec2dsnap**.

Syntax

```
ec2-describe-snapshots [snapshot_id ...] [-a] [-o owner ...] [-r user_id]
[[--filter name=value] ...]
```

Options

Name	Description	Required
snapshot_id	The ID of the Amazon EBS snapshot. Type: String Default: Describes snapshots for which you have launch permissions. Example: snap-78a54011	No
-a, --all *owner*	Describe all snapshots (public, private or shared) to which you have access. Type: String Default: None Example: -a	No
-o, --owner *owner*	Returns snapshots owned by the specified owner. Multiple owners can be specified. Type: String Valid Values: self | amazon | AWS Account ID Default: None Example: -o AKIAIOSFODNN7EXAMPLE	No
-r, --restorable-by *user_id*	ID of an AWS account that can create volumes from the snapshot. Type: String Valid Values: self | all | an AWS account ID Default: None Example: -r self	No
-F, --filter *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all snapshots you own, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- SNAPSHOT identifier
- ID of the snapshot
- ID of the volume
- Snapshot state (e.g., pending, completed, error)
- Time stamp when snapshot initiated
- Percentage of completion
- ID of the owner
- Size of the volume
- Description
- Any tags assigned to the snapshot

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes snapshot `snap-7ddb6e14`.

```
PROMPT> ec2-describe-snapshots snap-7ddb6e14
SNAPSHOT snap-7ddb6e14 vol-9539dcfc completed 2009-09-15T22:06:15.000Z 100%
111122223333 1 Daily Backup
```

Example Request

This example filters the results to display only snapshots with the `pending` status, and that are also tagged with a value that includes the string `db_`.

```
PROMPT> ec2-describe-snapshots --filter "status=pending" --filter "tag-
value=*db_*"
SNAPSHOT snap-1a2b3c4d vol-8875daef pending 2010-07-29T04:12:01.000Z 30%
111122223333 15  demo_db_14_backup
```

Related Operations

- ec2-create-snapshot (p. 101)
- ec2-delete-snapshot (p. 155)

ec2-describe-spot-datafeed-subscription

Description

Describes the datafeed for Spot Instances. For more information about Spot Instances, go to Spot Instances in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2dsds**.

Syntax

```
ec2-describe-spot-datafeed-subscription
```

Options

This command does not have any options.

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.

Option	Description
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- SPOTDATAFEEDSUBSCRPITION identifier
- AWS account ID of the owner
- Amazon S3 bucket where the data feed is located
- Prefix for the data feed files
- State of the data feed (Active or Inactive)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the datafeed for the account.

```
PROMPT> ec2-describe-spot-datafeed-subscription
SPOTDATAFEEDSUBSCRIPTION        111122223333    myawsbucket     spotdata
Active
```

Related Operations

- ec2-create-spot-datafeed-subscription (p. 104)
- ec2-delete-spot-datafeed-subscription (p. 158)

ec2-describe-spot-instance-requests

Description

Describes the Spot Instance requests that belong to your account. Spot Instances are instances that Amazon EC2 starts on your behalf when the maximum price that you specify exceeds the current Spot Price. Amazon EC2 periodically sets the Spot Price based on available Spot Instance capacity and current Spot Instance requests. For more information about Spot Instances, go to Spot Instances in the *Amazon Elastic Compute Cloud User Guide*.

You can filter the results to return information only about Spot Instance requests that match criteria you specify. For example, you could get information about requests where the Spot Price you specified is a certain value (however, you can't use greater than or less than comparison, but you can use * and ? wildcards). You can specify multiple values for a filter. A Spot Instance request must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the Spot Price is equal to a particular value, and the instance type is m1.small). The result includes information for a particular request only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`availability-zone-group`	Availability Zone group. If you specify the same Availability Zone group for all Spot Instance requests, all Spot Instances are launched in the same Availability Zone. Type: String
`create-time`	Time stamp when the Spot Instance request was created. Type: String
`fault-code`	Fault code related to the request. Type: String
`fault-message`	Fault message related to the request. Type: String
`instance-id`	ID of the instance that fulfilled the request. Type: String
`launch-group`	Spot Instance launch group. Launch groups are Spot Instances that launch together and terminate together. Type: String
`launch.block-device-mapping.delete-on-termination`	Whether an Amazon EBS volume mapped to the instance is deleted on instance termination. Type: Boolean

Filter Name	Description
launch.block-device-mapping.device-name	Device name (e.g., /dev/sdh) for an Amazon EBS volume mapped to the instance. Type: String
launch.block-device-mapping.snapshot-id	ID for a snapshot mapped to the instance. Type: String
launch.block-device-mapping.volume-size	Size of an Amazon EBS volume mapped to the instance (in GiB). Type: String
launch.group-id	A security group the instance is in. Type: String
launch.image-id	The AMI ID. Type: String
launch.instance-type	Type of instance (e.g., m1.small). Type: String
launch.kernel-id	Kernel ID. Type: String
launch.key-name	Name of the key pair the instance launched with. Type: String
launch.monitoring-enabled	Whether monitoring is enabled for the Spot Instance. Type: Boolean
launch.ramdisk-id	RAM disk ID. Type: String
network-interface.network-interface-id	The ID of the network interface. Type: String
network-interface.device-index	The index of the device for the network interface attachment on the instance. Type: Integer
network-interface.subnet-id	The ID of the subnet that the instance is in. Type: String
network-interface.description	Description of the network interface. Type: String
network-interface.private-ip-address	IP address of the network interface. Type: String
network-interface.delete-on-termination	Whether the network interface is deleted when the instance is terminated. Type: Boolean

Filter Name	Description
`network-interface.group-id`	The ID of the security group associated with the network interface. Type: String
`product-description`	Product description associated with the instance. Type: String Valid Values: `Linux/UNIX` | `Windows`
`spot-instance-request-id`	Spot Instance request ID. Type: String
`spot-price`	Maximum hourly price for any Spot Instance launched to fulfill the request. Type: String
`state`	State of the Spot Instance request. Type: String Valid Values: `active` | `cancelled` | `open` | `closed` | `failed`
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`type`	Type of Spot Instance request. Type: String Valid Values: `one-time` | `persistent`

Filter Name	Description
`launched-availability-zone`	The Availability Zone in which the bid is launched. Type: String Valid Values: `us-east-1a`, etc.
`valid-from`	Start date of the request. Type: xsd:dateTime
`valid-until`	End date of the request. Type: xsd:dateTime

The short version of this command is **ec2dsir**.

Syntax

```
ec2-describe-spot-instance-requests [request_id ...] [[--filter name=value]
...]
```

Options

Name	Description	Required
request_id	Specifies the ID of the Spot Instance request. Type: String Default: None Example: sir-8456a32b	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all Spot Instance requests you own, or those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Request ID
- Spot Price
- Type
- State (active, open, closed, cancelled, failed)
- Fault
- Valid From

- Valid Until
- Launch Group
- Availability Zone Group
- Launched Availability Zone
- Launch Specification
- Create Time
- Description
- Any tags assigned to the request

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example returns information about a specific Spot Instance request.

```
PROMPT> ec2-describe-spot-instance-requests -H sir-64b4ee11
Type  SpotInstanceRequestID  Price  RequestType  ProductDescription  State
Created  ValidFrom  ValidUntil  LaunchGroup  AZGroup  InstanceID  ImageID In
stanceType  KeyName  Groups AvailabilityZone  KernelID  RamdiskID  Monitored
SubnetID  LaunchedAvailabilityZone
SPOTINSTANCEREQUEST  sir-64b4ee11  0.100000  one-time  Linux/UNIX  open  2011-
08-30T11:02:16-0800   2011-08-30T12:00:00-0800  test  testAZ   ami-8c1fece5
t1.micro  SpotTest sg-c20e77ab us-east-1a monitoring-enabled us-east-1a
```

Example Request

This example describes all persistent Spot Instance requests that have resulted in the launch of at least one m1.small instance, that has been fulfilled in the us-east-1a Availability Zone, and that also has monitoring enabled.

```
PROMPT> ec2-describe-spot-instance-requests --filter "type=persistent" --filter
 "launch.instance-type=m1.small" --filter "launch.monitoring-enabled=true"
```

Related Operations

- ec2-request-spot-instances (p. 430)
- ec2-cancel-spot-instance-requests (p. 55)
- ec2-describe-spot-price-history (p. 295)

ec2-describe-spot-price-history

Description

Describes the Spot Price history. Spot Instances are instances that Amazon EC2 starts on your behalf when the maximum price that you specify exceeds the current Spot Price. Amazon EC2 periodically sets the Spot Price based on available Spot Instance capacity and current Spot Instance requests. For more information about Spot Instances, go to Spot Instances in the *Amazon Elastic Compute Cloud User Guide*.

When you use the `availability-zone` option, this command describes the price history for the specified Availability Zone with the most recent set of prices listed first. If you don't specify an Availability Zone, the command returns the prices across all Availability Zones, starting with the most recent set. However, if you use this command with versions of the API earlier than the 2011-05-15 version, this command returns the lowest price across the Region for the given time period. The prices returned will be listed in chronological order from the oldest to the most recent.

Note

Our policy is to provide filters for all "describe" calls so you can limit the results to your specified criteria. Therefore, you can use filters to limit the results when describing Spot Price histories, even though you can use the regular request parameters to do something similar.

For example, you could use the regular request parameters or a filter to get the history for a particular instance type. You can specify multiple request parameters or multiple filters (e.g., limit the results to the m2.xlarge instance type, and only for Windows instances). The result includes information for a particular price history only if it matches *all* your request parameters or filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`instance-type`	Type of instance (e.g., m1.small). Type: String
`product-description`	Product description for the Spot Price. Type: String Valid Values: `Linux/UNIX` | `SUSE Linux` | `Windows` | `Linux/UNIX (Amazon VPC)` | `SUSE Linux (Amazon VPC)` | `Windows (Amazon VPC)`
`spot-price`	Spot Price. The value must match exactly (or use wildcards; greater than or less than comparison is not supported). Type: String
`timestamp`	Timestamp of the Spot Price history, e.g., 2010-08-16T05:06:11.000Z. You can use wildcards (* and ?). Greater than or less than comparison is not supported. Type: xsd:dateTime

Filter Name	Description
`availability-zone`	The Availability Zone for which prices should be returned. Type: String

The short version of this command is **ec2dsph**.

Syntax

```
ec2-describe-spot-price-history [--start-time timestamp] [--end-time timestamp]
[--instance-type type] [--product-description description] [[--filter name=value]
...] [--availability-zone zone]
```

Options

Name	Description	Required
`-s, --start-time` *timestamp*	Start date and time of the Spot Instance price history data. Type: DateTime Default: None Example: -s 2009-12-01T11:51:50.000Z	No
`-e, --end-time` *timestamp*	End date and time of the Spot Instance price history data. Type: DateTime Default: None Example: -e 2009-12-31T11:51:50.000Z	No
`-t, --instance-type` *type*	Specifies the instance type to return. Type: String Valid Values: `m1.small` | `m1.large` | `m1.xlarge` | `c1.medium` | `c1.xlarge` | `m2.xlarge` | `m2.2xlarge` | `m2.4xlarge` | `t1.micro` Default: None Example: -t m1.large	No
`-d, --product-description` *description*	Filters the results by basic product description. Type: String Valid Values: `Linux/UNIX` | `SUSE Linux` | `Windows` | `Linux/UNIX (Amazon VPC)` | `SUSE Linux (Amazon VPC)` | `Windows (Amazon VPC)` Default: None Example: -d Linux/UNIX	No

Name	Description	Required
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Lists all available history information, or just that information otherwise specified. Example: --filter "product-description=Linux/UNIX"	No
`-a, --availability-zone` *zone*	The Availability Zone for which you want to get the price history Type: String Default: None Example: us-east-1a	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45

Option	Description
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
-H, --headers	Displays column headers in the output.
--show-empty-fields	Shows empty columns as (nil).
--hide-tags	Do not display tags for tagged resources.
--debug	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
-?, --help, -h	Displays Help.
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -

Output

The command returns a table that contains the following information:

- Output type identifier ("SPOTINSTANCEPRICE")
- Price
- Date and time
- Instance type
- Product description (e.g., Linux/UNIX)
- Availability Zone (e.g., us-east-1a)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example returns Spot Price history for m1.small instances for a particular day in May.

```
PROMPT> ec2-describe-spot-price-history -H --instance-type m1.xlarge --start-time 2011-05-06T07:08:09 --end-time 2011-05-06T08:09:10
Type Price Timestamp InstanceType ProductDescription AvailabilityZone
SPOTINSTANCEPRICE 0.417000 2011-05-06T05:54:03-0800 m1.xlarge Windows us-east-1b
SPOTINSTANCEPRICE 0.417000 2011-05-06T05:54:03-0800 m1.xlarge Windows us-east-1d
SPOTINSTANCEPRICE 0.417000 2011-05-06T05:54:03-0800 m1.xlarge Windows us-east-1a
...
```

The following example uses filters instead of request options to get the same results.

```
PROMPT> ec2-describe-spot-price-history -H --instance-type m1.xlarge --start-time 2011-05-06T07:08:09 --end-time 2011-05-06T08:09:10 --product-description 'Linux/UNIX'
Type Price Timestamp InstanceType ProductDescription AvailabilityZone
SPOTINSTANCEPRICE 0.234000 2011-05-06T05:08:03-0800 m1.xlarge Linux/UNIX us-east-1b
SPOTINSTANCEPRICE 0.234000 2011-05-06T05:08:03-0800 m1.xlarge Linux/UNIX us-east-1c
SPOTINSTANCEPRICE 0.234000 2011-05-06T05:08:03-0800 m1.xlarge Linux/UNIX us-east-1d
...
```

Related Operations

- ec2-describe-spot-instance-requests (p. 289)
- ec2-request-spot-instances (p. 430)
- ec2-cancel-spot-instance-requests (p. 55)

ec2-describe-subnets

Description

Gives you information about your subnets. You can filter the results to return information only about subnets that match criteria you specify. For example, you could get information only about subnets whose state is `available`. You can specify multiple values for the filter. The subnet must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the subnet is in a particular VPC, and the subnet's state is `available`). The result includes information for a particular subnet only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`availability-zone`	The Availability Zone the subnet is in. Type: String
`available-ip-address-count`	Number of IP addresses in the subnet that are available. Type: String
`cidr`	The CIDR block of the subnet. The CIDR block you specify must exactly match the subnet's CIDR block for information to be returned for the subnet. Type: String Constraints: Must contain the slash followed by one or two digits (e.g., /28)
`state`	The state of the subnet. Type: String Valid Values: `pending` | `available`
`subnet-id`	The ID of the subnet. Type: String
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

Filter Name	Description

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`vpc-id`	The ID of the VPC the subnet is in. Type: String

The short version of this command is **ec2dsubnet**.

Syntax

```
ec2-describe-subnets [ subnet_id ... ] [[--filter name=value] ...]
```

Options

Name	Description	Required
`subnet_id`	A subnet ID. You can specify more than one in the request. Type: String Default: Returns information about all your subnets. Example: subnet-9d4a7b6c	No
`-F, --filter` *`name=value`*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all subnets you own, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("SUBNET")
- Subnet ID
- Current state of the subnet (pending or available)
- ID of the VPC the subnet is in
- CIDR block assigned to the subnet
- Number of IP addresses in the subnet that are available
- Availability Zone the subnet is in
- Any tags assigned to the subnet

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example gives a description of two subnets with IDs subnet-9d4a7b6c and subnet-6e7f829e.

```
PROMPT> ec2-describe-subnets subnet-9d4a7b6c subnet-6e7f829e
SUBNET  subnet-9d4a7b6c   available   vpc-1a2b3c4d  10.0.1.0/24   250   us-east-
1a
SUBNET  subnet-6e7f829e   available   vpc-1a2b3c4d  10.0.0.0/24   250   us-east-
1a
```

Example Request

This example uses filters to give a description of any subnet you own that is in the VPC with ID vpc-1a2b3c4d or vpc-6e7f8a92, and whose state is `available`. The response indicates that the VPC with ID vpc-6e7f8a92 doesn't have any subnets that match.

```
PROMPT> ec2-describe-subnets --filter "vpc-id=vpc-1a2b3c4d" --filter "vpc-id=vpc-
6e7f8a92"  --filter "state=available"
SUBNET  subnet-9d4a7b6c   available   vpc-1a2b3c4d  10.0.1.0/24   250   us-east-
1a
SUBNET  subnet-6e7f829e   available   vpc-1a2b3c4d  10.0.0.0/24   250   us-east-
1a
```

Related Operations

- ec2-create-subnet (p. 107)
- ec2-delete-subnet (p. 160)

ec2-describe-tags

Description

Lists your tags. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*.

You can use filters to limit the results when describing tags. For example, you could get only the tags for a particular resource type. You can specify multiple values for a filter. A tag must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., limit the results to a specific resource type, and get only tags with values that contain the string `database`). The result includes information for a particular tag only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`key`	Tag key. Type: String
`resource-id`	Resource ID. Type: String
`resource-type`	Resource type. Type: String Valid Values: `customer-gateway` | `dhcp-options` | `image` | `instance` | `internet-gateway` | `network-acl` | `reserved-instances` | `route-table` | `security-group` | `snapshot` | `spot-instances-request` | `subnet` | `volume` | `vpc` | `vpn-connection` | `vpn-gateway`
`value`	Tag value. Type: String

The short version of this command is **ec2dtag**.

Syntax

```
ec2-describe-tags [[--filter name=value] ...]
```

Options

Name	Description	Required
`-F, --filter` *`name=value`*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all tags you own, or only those otherwise specified. Example: --filter "resource-type=instance"	No

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.

Option	Description
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- TAG identifier
- Resource type
- Resource ID
- Tag key
- Tag value

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes all the tags belonging to your account.

```
PROMPT> ec2-describe-tags
TAG  ami-1a2b3c4d  image  webserver
TAG  ami-1a2b3c4d  image  stack  Production
TAG  i-5f4e3d2a  instance  webserver
TAG  i-5f4e3d2a  instance  stack  Production
TAG  i-12345678  instance  database_server
TAG  i-12345678  instance  stack  Test
```

Example Request

This example describes the tags for the AMI with ID ami-1a2b3c4d.

```
PROMPT> ec2-describe-tags --filter "resource-id=ami-1a2b3c4d"
TAG  ami-1a2b3c4d  image  webserver
TAG  ami-1a2b3c4d  image  stack  Production
```

Example Request

This example describes the tags for all your instances.

```
PROMPT> ec2-describe-tags --filter "resource-type=instance"
TAG  i-5f4e3d2a  instance  webserver
TAG  i-5f4e3d2a  instance  stack  Production
TAG  i-12345678  instance  database_server
TAG  i-12345678  instance  stack  Test
```

Example Request

This example describes the tags for all your instances tagged with the name *webserver*.

```
PROMPT> ec2-describe-tags --filter "resource-type=instance" --filter "key=web
server"
TAG  i-5f4e3d2a  instance  webserver
```

Example Request

This example describes the tags for all your instances tagged with either stack=Test or stack=Production.

```
PROMPT> ec2-describe-tags --filter "resource-type=instance" --filter "key=stack"
 --filter "value=Test" --filter "value=Production"
TAG  i-5f4e3d2a  instance  stack  Production
TAG  i-12345678  instance  stack  Test
```

Example Request

This example describes the tags for all your instances tagged with Purpose=[empty string].

```
PROMPT> ec2-describe-tags --filter "resource-type=instance" --filter "key=Pur
pose" --filter "value="
```

Related Operations

- ec2-create-tags (p. 110)
- ec2-delete-tags (p. 162)

ec2-describe-volumes

Description

Describes your Amazon EBS volumes. For more information about Amazon EBS, go to Using Amazon Elastic Block Store in the *Amazon Elastic Compute Cloud User Guide*.

You can filter the results to return information only about volumes that match criteria you specify. For example, you could get information about volumes whose status is `available`. You can specify multiple values for a filter (e.g., the volume's status is either `available` or `in-use`). A volume must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the volume's status is `available`, and it is tagged with a particular value). The result includes information for a particular volume only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`attachment.attach-time`	Time stamp when the attachment initiated. Type: xsd:dateTime
`attachment.delete-on-termination`	Whether the volume will be deleted on instance termination. Type: Boolean
`attachment.device`	How the volume is exposed to the instance (e.g., /dev/sda1). Type: String
`attachment.instance-id`	ID of the instance the volume is attached to. Type: String
`attachment.status`	Attachment state. Type: String Valid Values: `attaching` | `attached` | `detaching` | `detached`
`availability-zone`	Availability Zone in which the volume was created. Type: String
`create-time`	Time stamp when the volume was created. Type: xsd:dateTime
`size`	Size of the volume, in GiB (e.g., `20`). Type: String
`snapshot-id`	Snapshot from which the volume was created. Type: String

Filter Name	Description
`status`	Status of the volume. Type: String Valid Values: `creating` | `available` | `in-use` | `deleting` | `deleted` | `error`
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`volume-id`	Volume ID. Type: String

The short version of this command is **ec2dvol**.

Syntax

```
ec2-describe-volumes [volume_id ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
`volume_id`	The ID of the volume to list. Type: String Default: Describes all volumes you own, or only those otherwise specified. Example: vol-4282672b	No

Name	Description	Required
`-F, --filter` *`name=value`*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all volumes you own, or those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- VOLUME identifier
- ID of the volume
- Size of the volume, in GiBs
- Snapshot from which the volume was created, if applicable
- Availability Zone in which the volume launched
- Volume state (e.g., creating, available, in-use, deleting, deleted, error)
- Time stamp when volume creation initiated
- Any tags assigned to the volume

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes all volumes associated with your account.

```
PROMPT> ec2-describe-volumes
VOLUME vol-4d826724 800 us-east-1a in-use 2008-02-14T00:00:00+0000
ATTACHMENT vol-4d826724 i-6058a509 /dev/sdh attached 2008-02-14T00:00:17+0000
VOLUME vol-50957039 13 us-east-1a available 2008-02-091T00:00:00+0000
VOLUME vol-6682670f 1 us-east-1a in-use 2008-02-11T12:00:00+0000
ATTACHMENT vol-6682670f i-69a54000 /dev/sdh attached 2008-02-11T13:56:00+0000
VOLUME vol-932685fa 15   snap-a08912c9   us-east-1a  in-use  2010-03-
31T12:17:07+0000
ATTACHMENT   vol-932685fa   i-71ca481a    /dev/sda1  attached   2010-04-
06T14:16:00+0000
VOLUME vol-8975dae0  15  snap-a08912c9   us-east-1c  deleting   2010-04-
07T14:59:27+0000
VOLUME vol-35be105c  10   us-east-1a   available  2010-04-08T07:57:15+0000
```

Example Request

This example describes all volumes that are both attached to instance i-1a2b3c4d and also set to delete when the instance terminates.

```
PROMPT> ec2-describe-volumes --filter "attachment.instance-id=i-1a2b3c4d" --
filter "attachment.delete-on-termination=true"
```

Related Operations

- ec2-create-snapshot (p. 101)
- ec2-delete-snapshot (p. 155)

ec2-describe-volume-attribute

Description

Describes attribute of the volume.

Currently, volumes have two attributes: `auto-enable-io` and `product-codes`.

The short version of this command is **ec2dvolatt**.

Syntax

```
ec2-describe-volume-attribute volume_id ...
<replace>attribute</replace>
```

Options

Name	Description	Required
volume_id	The ID of the volume. Type: String Example: vol-4282672b	Yes
Attribute	The instance attribute to get. Type: String Default: None Valid values: [--auto-enable-io | --product-codes] or [-a | -p] Example: `--auto-enable-io` Example: `-p`	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- ID of the volume
- Information on the attribute

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example describes the autoEnableIo attribute of the volume vol-999999.

```
PROMPT> ec2-describe-volume-attribute vol-999999 -a
VolumeId     Attribute
vol-999999   autoEnableIo
AUTO-ENABLE-IO true
```

Example Request

This example describes the productCodes attribute of the volume vol-777777.

```
PROMPT> ec2-describe-volume-attribute vol-777777 -p
VolumeId     Attribute
vol-777777  productCodes
PRODUCT_CODES [marketplace: a1b2c3d4e5f6g7h8i9j10k11]
```

Related Operations

- ec2-describe-volume-status (p. 316)
- ec2-modify-volume-attribute (p. 394)
- ec2-enable-volume-io (p. 351)

ec2-describe-volume-status

Description

Returns the status of one or more volumes. Volume status provides the result of the checks performed on your volumes to determine events that can impair the performance of your volumes. The performance of a volume can be affected if an issue occurs on the volume's underlying host. If the volume's underlying host experiences a power outage or system issue, once the system is restored, there could be data inconsistencies on the volume. Volume events notify you if this occurs. Volume action notifies you if any action needs to be taken in response to the event.

The `DescribeVolumeStatus` operation provides the following information about the specified volumes:

Status: Reflects the current status of the volume. The possible values are `ok`, `impaired` , or `insufficient-data`. If all checks pass, the overall status of the volume is `ok`. If the check fails, the overall status is `impaired`. If the status is `insufficient-data`, then the checks may still be taking place on your volume at the time. We recommend you retry the request. For more information on volume status, go to Monitoring the Status of Your Volumes.

Events: Reflect the cause of a volume status and may require you to take an action. For example, if your volume returns an `impaired` status, then the volume event might be `potential-data-inconsistency`. This means that your volume has been impacted by an issue with the underlying host, has all I/O operations disabled, and may have inconsistent data.

Actions: Reflect the actions you may have to take in response to an event. For example, if the status of the volume is `impaired` and the volume event shows `potential-data-inconsistency`, then the action will show `enable-volume-io`. This means that you may want to to enable the I/O operations for the volume by issuing the ec2-enable-volume-io (p. 351) command and then check the volume for data consistency.

Note

Volume status only has one status check. It does not check volume state as reported by DescribeVolumes. Therefore, it does not detect volumes in the ERROR state (i.e., when a volume is incapable of accepting I/Os because it is in an error state.)

You can filter the results to return information only about volumes that match criteria you specify. For example, you could get information about volumes that have `impaired` status. You can specify multiple values for a filter (e.g., more than one Availability Zone). A volume must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the volume is in a specific Availability Zone and its status is set to `impaired`). A volume must match *all* the filters for it to be included in the results. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`availability-zone`	Instance's Availability Zone. Type: String

Filter Name	Description
`volume-status.status`	The status of the volume. Type: String Valid Values: `ok` | `impaired` | `insufficient-data`
`volume-status.details-name`	The cause for the `volume-status.status`. Type: String Valid value: `io-enabled`
`volume-status.details-status`	The status of the `volume-status.details-name`. Type: String Valid Values: `passed` | `failed`
`event.description`	A description of the event. Type: String
`event.not-after`	The latest end time for the event. Type: dateType
`event.not-before`	The earliest start time for the event. Type: dateType
`event.event-id`	The event ID. Type: String
`event.event-type`	The event type, e.g., `potential-data-inconsistency` Type: String
`action.code`	The action code for the event, e.g., `enable-volume-io` Type: String
`action.event-id`	The event ID associated with the action. Type: String
`action.description`	A description of the action. Type: String

The short version of this command is **ec2dvs**.

Syntax

```
ec2-describe-volume-status [volume_id ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
volume_id	The ID of the volume/s to list. Type: String Default: Describes the status of all volumes you own, or only those otherwise specified. Example: vol-4282672b	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all volumes you own, or those otherwise specified. Example: --filter "volume-status.status=Ok"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45

Option	Description
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
-H, --headers	Displays column headers in the output.
--show-empty-fields	Shows empty columns as (nil).
--hide-tags	Do not display tags for tagged resources.
--debug	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
-?, --help, -h	Displays Help.
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -

Output

The command returns a table that contains the following information:

- VOLUME identifier
- ID of the volume
- Availability Zone in which the volume launched
- Volume status name(e.g., Ok, impaired, io-enabled, insufficient-data)
- EVENT identifier
- ID of the Event
- Event type (e.g., potential-data-inconsistencies)
- The description of the event.
- notBefore (the earliest start time of the event)
- notAfter (the latest end time of the event)
- ACTION identifier
- The action code (e.g., enable-volume-io)
- The ID of the event associated with the action.
- The event type associated with the action (e.g., potential-data-inconsistency)
- The description of the event associated with the action.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example describes the status of the volumes vol-111111 and vol-222222.

```
PROMPT> ec2-describe-volume-status  vol-111111 vol-222222
Type          VolumeId   AvailabilityZone VolumeStatus
VOLUME        vol-111111 us-east-1a       ok
VOLUME        vol-222222 us-east-1b       impaired
Type          Name       Status
VOLUMESTATUS  io-enabled failed
Type  EventType       NotBefore               NotAfter EventId   EventDescrip
tion
EVENT potential-data-inconsistency 2011-12-01T14:00:00.000Z          evol-
61a54008  This is an example
Type   ActionCode                  EventId    EventType
  EventDescription
ACTION enable-volume-io           evol-61a54008  potential-data-inconsistency
  This is an example
```

Example Request

This example describes the volumes associated with your account that have failing I/O operations.

```
PROMPT> ec2-describe-volume-status --filter "volume-status.details-name=io-en
abled" --filter "volume-status.details-status=failed"
```

Related Operations

- ec2-describe-volume-attribute (p. 313)
- ec2-modify-volume-attribute (p. 394)
- ec2-enable-volume-io (p. 351)

ec2-describe-vpcs

Description

Gives you information about your VPCs. You can filter the results to return information only about VPCs that match criteria you specify. For example, you could get information only about VPCs whose state is `available`. You can specify multiple values for the filter. A VPC must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the VPC uses one of several sets of DHCP options, and the VPC's state is `available`). The result includes information for a particular VPC only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`cidr`	The CIDR block of the VPC. The CIDR block you specify must exactly match the VPC's CIDR block for information to be returned for the VPC. Type: String Constraints: Must contain the slash followed by one or two digits (e.g., /28)
`dchp-options-id`	The ID of a set of DHCP options. Type: String
`state`	The state of the VPC. Type: String Valid Values: `pending` | `available`
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

Filter Name	Description
vpc-id	ID of the VPC. Type: String

The short version of this command is **ec2dvpc**.

Syntax

```
ec2-describe-vpcs [ vpc_id ... ] [[--filter name=value] ...]
```

Options

Name	Description	Required
vpc_id	The ID of a VPC you want information about. Type: String Default: Returns information about all your VPCs. Example: vpc-1a2b3c4d	No
-F, --filter *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all VPCs you own, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
--region *REGION*	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the -U option. Default: The EC2_URL environment variable, or us-east-1 if the environment variable is not set. Example: --region eu-west-1
-U, --url *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The EC2_URL environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: -U https://ec2.amazonaws.com

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPC")
- VPC ID
- CIDR block of the VPC
- The current state of the VPC (pending or available)
- ID of the DHCP options associated with the VPC (or default if none)
- Any tags assigned to the VPC
- The allowed tenancy of instances launched into the VPC.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example gives a description of the VPC with ID vpc-1a2b3c4d.

```
PROMPT> ec2-describe-vpcs vpc-1a2b3c4d
VPC  vpc-1a2b3c4d   available  10.0.0.0/23  dopt-7a8b9c2d
```

Example Request

This example uses filters to give a description of any VPC you own that uses the set of DHCP options with ID dopt-7a8b9c2d or dopt-2b2a3d3c and whose state is `available`.

```
PROMPT> ec2-describe-vpcs --filter "dhcp-options-id=dopt-7a8b9c2d" --filter
"dhcp-options-id=dopt-2b2a3d3c"  --filter "state=available"
VPC  vpc-1a2b3c4d  available  10.0.0.0/23  dopt-7a8b9c2d
```

Related Operations

- ec2-create-vpc (p. 116)
- ec2-delete-vpc (p. 168)
- ec2-create-dhcp-options (p. 67)
- ec2-associate-dhcp-options (p. 19)

ec2-describe-vpn-connections

Description

Gives you information about your VPN connections. You can filter the results to return information only about VPN connections that match criteria you specify. For example, you could get information only about VPN connections whose state is `pending` or `available`. You can specify multiple values for the filter. A VPN connection must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the VPN connection is associated with a particular virtual private gateway, and the gateway's state is `pending` or `available`). The result includes information for a particular VPN connection only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`customer-gateway-configuration`	Configuration information for the customer gateway. Type: String
`customer-gateway-id`	The ID of a customer gateway associated with the VPN connection. Type: String
`state`	The state of the VPN connection. Type: String Valid Values: `pending` | `available` | `deleting` | `deleted`
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

Filter Name	Description
`type`	The type of VPN connection. Currently the only supported type is `ipsec.1`. Type: String Valid Values: `ipsec.1`
`vpn-connection-id`	ID of the VPN connection. Type: String
`vpn-gateway-id`	The ID of a virtual private gateway associated with the VPN connection. Type: String

For VPN connections in the pending or available state only, you can also optionally get the configuration information for the VPN connection's customer gateway. You do this by specifying a format with the `--format` option, or by specifying an XSL stylesheet of your own design with the `--stylesheet` option (you were also able to do this when you created the VPN connection).

For more information about Amazon Virtual Private Cloud and VPN connections, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2dvpn**.

Syntax

```
ec2-describe-vpn-connections [vpn_connection_id  ... ] [{--format format} |
{--stylesheet your_stylesheet}] [[--filter name=value] ...]
```

Options

Name	Description	Required
vpn_connection_id	A VPN connection ID. You can specify more than one in the request. Type: String Default: Returns information about all your VPN connections. Example: vpn-44a8938f	No

Name	Description	Required
`--format` *format*	Causes the response to include customer gateway configuration information, in the format specified by this option. The information is returned only if the VPN connection is in the pending or available state. The returned information can be formatted for various devices, including a Cisco device (cisco-ios-isr) or Juniper device (juniper-junos-j), in human readable format (generic), or in the native XML format (xml). Type: String Default: None Valid Values: `cisco-ios-isr` | `juniper-junos-j` | `juniper-screenos-6.2` | `juniper-screenos-6.1` | `generic` | `xml` Example: --format cisco-ios-isr	No
`--stylesheet` *your_stylesheet*	Causes the response to include customer gateway configuration information, formatted according to the custom XSL stylesheet you specify with this option. The information is returned only if the VPN connection is in the pending or available state. Type: String Default: None Example: --stylesheet c:\my_stylesheet.xsl	No
`-F, --filter` *name=value*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all VPN connections you own, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPNCONNECTION")
- VPN connection ID
- Type of VPN connection
- Customer gateway ID
- Virtual private gateway ID
- State of the VPN connection (pending, available, deleting, deleted)
- Configuration information for the customer gateway (optional and available only if the VPN connection is in the pending or available state)
- Any tags assigned to the VPN connection

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example gives a description of the VPN connection with ID vpn-44a8938f. The example specifies that the configuration information be formatted as needed for a Cisco customer gateway. Because it's a long set of information, we haven't displayed it here in the response. To see an example of the configuration information, go to the Amazon Virtual Private Cloud Network Administrator Guide.

```
PROMPT> ec2-describe-vpn-connections vpn-44a8938f --format cisco-ios-isr
VPNCONNECTION  vpn-44a8938f  ipsec.1  vgw-8db04f81  cgw-b4dc3961  available
<Long customer gateway configuration data formatted for Cisco device... >
```

Example Request

This example uses filters to give a description of any VPN connection you own associated with the customer gateway with ID cgw-b4dc3961, and whose state is either `pending` or `available`. Note that it doesn't use the option that causes the output to include the customer gateway configuration.

```
PROMPT> ec2-describe-vpn-connections --filter "customer-gateway-id=cgw-b4dc3961"
  --filter "state=pending" --filter "state=available"
VPNCONNECTION  vpn-44a8938f  ipsec.1  vgw-8db04f81  cgw-b4dc3961  available
```

Related Operations

- ec2-create-vpn-connection (p. 119)
- ec2-delete-vpn-connection (p. 170)

ec2-describe-vpn-gateways

Description

Gives you information about your virtual private gateways. You can filter the results to return information only about virtual private gateways that match criteria you specify. For example, you could get information only about virtual private gateways whose state is `pending` or `available`. You can specify multiple values for the filter. A virtual private gateway must match at least one of the specified values for it to be included in the results.

You can specify multiple filters (e.g., the virtual private gateway is in a particular Availability Zone and the gateway's state is `pending` or `available`). The result includes information for a particular virtual private gateway only if it matches *all* your filters. If there's no match, no special message is returned; the response is simply empty.

You can use wildcards with the filter values: * matches zero or more characters, and ? matches exactly one character. You can escape special characters using a backslash before the character. For example, a value of `\*amazon\?\\` searches for the literal string `*amazon?\`.

The following table shows the available filters.

Filter Name	Description
`attachment.state`	Current state of the attachment between the gateway and the VPC. Type: String Valid Values: `attaching` | `attached` | `detaching` | `detached`
`attachment.vpc-id`	ID of an attached VPC. Type: String
`availability-zone`	The Availability Zone the virtual private gateway is in. Type: String
`state`	The state of the virtual private gateway. Type: String Valid Values: `pending` | `available` | `deleting` | `deleted`
`tag-key`	Key of a tag assigned to the resource. This filter is independent of the `tag-value` filter. For example, if you use both the filter `tag-key=Purpose` and the filter `tag-value=X`, you get any resources assigned both the tag key `Purpose` (regardless of what the tag's value is), and the tag value `X` (regardless of what the tag's key is). If you want to list only resources where Purpose=X, see the `tag:`*`key`* filter later in this table. For more information about tags, go to Using Tags in the *Amazon Elastic Compute Cloud User Guide*. Type: String
`tag-value`	Value of a tag assigned to the resource. This filter is independent of the `tag-key` filter. Type: String

Filter Name	Description

`tag:`*`key`*	Filters the results based on a specific tag/value combination.
	Example: To list just the resources assigned tag Purpose=X, then specify:
	`--filter tag:Purpose=X`
	Example: To list just resources assigned tag Purpose=X OR Purpose=Y, then specify:
	`--filter tag:Purpose=X --filter tag:Purpose=Y`

`type`	The type of virtual private gateway. Currently the only supported type is `ipsec.1`. Type: String Valid Values: `ipsec.1`
`vpn-gateway-id`	ID of the virtual private gateway. Type: String

For more information about Amazon Virtual Private Cloud and virtual private gateways, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2dvgw**.

Syntax

```
ec2-describe-vpn-gateways [vpn_gateway_id  ... ] [[--filter name=value] ...]
```

Options

Name	Description	Required
`vpn_gateway_id`	A virtual private gateway ID. You can specify more than one in the request. Type: String Default: Returns information about all your virtual private gateways. Example: vgw-8db04f81	No
`-F, --filter` *`name=value`*	A filter for limiting the results. See the preceding table for a list of allowed filter names and values. You need to use quotation marks if the value string has a space (e.g., "name=value example"). If you're using the command line tools on a Windows system, you might need to use quotation marks, even when there is no space in the value string (e.g., "name=value"). Type: String Default: Describes all virtual private gateways you own, or only those otherwise specified. Example: --filter "tag-key=Production"	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPNGATEWAY")
- Virtual private gateway ID
- State of the virtual private gateway (pending, available, deleting, deleted)
- Availability Zone where the virtual private gateway was created
- Type of VPN connection the virtual private gateway supports
- Output type identifier ("VGWATTACHMENT")
- ID of each attached VPC and the state of each attachment (attaching, attached, detaching, detached)
- Any tags assigned to the virtual private gateway

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example gives a description of the virtual private gateway with ID vgw-8db04f81.

```
PROMPT> ec2-describe-vpn-gateways vgw-8db04f81
VPNGATEWAY  vgw-8db04f81  available   us-east-1a   ipsec.1
VGWATTACHMENT  vpc-1a2b3c4d  attached
```

Example Request

This example uses filters to give a description of any virtual private gateway you own that is in the us-east-1a Availability Zone, and whose state is either `pending` or `available`.

```
PROMPT> ec2-describe-vpn-gateways --filter "availability-zone=us-east-1a" --
filter "state=pending" --filter "state=available"
VPNGATEWAY  vgw-8db04f81  available   ipsec.1
VGWATTACHMENT  vpc-1a2b3c4d  attached
```

Related Operations

- ec2-create-vpn-gateway (p. 123)
- ec2-delete-vpn-gateway (p. 173)

ec2-detach-internet-gateway

Description

Detaches an Internet gateway from a VPC, disabling connectivity between the Internet and the VPC. The VPC must not contain any running instances with Elastic IP addresses. For more information about your VPC and Internet gateway, go to the Amazon Virtual Private Cloud User Guide.

The short version of this command is **ec2detigw**.

Syntax

```
ec2-detach-internet-gateway vpn_gateway_id  -c vpc_id
```

Options

Name	Description	Required
vpn_gateway_id	The ID of the Internet gateway to detach. Type: String Default: None Example: igw-8db04f81	Yes
`-c, --vpc` *vpc_id*	The ID of the VPC. Type: String Default: None Example: -c vpc-1a2b3c4d	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example detaches the Internet gateway with ID igw-eaad4883 from the VPC with ID vpc-11ad4878.

```
PROMPT> ec2-detach-internet-gateway igw-eaad4883  -c vpc-11ad4878
RETURN   true
```

Related Operations

- ec2-create-internet-gateway (p. 77)
- ec2-delete-internet-gateway (p. 136)
- ec2-detach-internet-gateway (p. 25)
- ec2-describe-internet-gateways (p. 236)

ec2-detach-network-interface

Description

Detaches a network interface from an instance. The NETWORKATTACHMENT parameter is the ID of the attachment.

The short version of this command is **ec2detnic**.

Syntax

```
ec2-detach-network-interface NETWORKATTACHMENT -f, --force
```

Options

Name	Description	Required
-f, --force	Forcefully disconnect NETWORKATTACHMENT from INSTANCE. Type: String Default: None	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the name of the network attachment that was detached.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example detaches the specified network interface.

```
PROMPT> ec2-detach-network-interface eni-attach-083fda61

ATTACHMENT    eni-attach-083fda61    detaching
```

Related Operations

- ec2-create-network-interface (p. 89)
- ec2-delete-network-interface (p. 146)
- ec2-describe-network-interfaces (p. 248)
- ec2-describe-network-interface-attribute (p. 254)
- ec2-attach-network-interface (p. 28)
- ec2-modify-network-interface-attribute (p. 387)
- ec2-reset-network-interface-attribute (p. 444)

ec2-detach-volume

Description

Detaches an Amazon EBS volume from an instance. Make sure to unmount any file systems on the device within your operating system before detaching the volume. Failure to do so will result in volume being stuck in "busy" state while detaching. For more information about Amazon EBS, go to Using Amazon Elastic Block Store in the *Amazon Elastic Compute Cloud User Guide*.

Note

If an Amazon EBS volume is the root device of an instance, it cannot be detached while the instance is in the 'running' state. To detach the root volume, stop the instance first.

If the root volume is detached from an instance with an AWS Marketplace product code, then the AWS Marketplace product codes from that volume will no longer be associated with the instance.

The short version of this command is **ec2detvol**.

Syntax

```
ec2-detach-volume volume_id [--instance instance_id [--device device]] [--force]
```

Options

Name	Description	Required
volume_id	The ID of the volume. Type: String Default: None Example: vol-4282672b	Yes
-i, --instance *instance_id*	The ID of the instance. Type: String Default: None Example: -i i-6058a509	No
-d, --device *device*	The device name. Type: String Default: None Example: -d /dev/sdh	No

Name	Description	Required
`-f, --force`	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 or file system metadata. If you use this option, you must perform file system check and repair procedures. Type: Boolean Default: None Example: -f	No

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- ATTACHMENT identifier
- ID of the volume
- ID of the instance
- Device as which the volume is exposed within the instance
- Attachment state (e.g., detaching)
- Time stamp when detaching was initiated

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example detaches volume `vol-4d826724`.

```
PROMPT> ec2-detach-volume vol-4d826724
ATTACHMENT vol-4d826724 i-6058a509 /dev/sdh detaching 2008-02-14T00:00:17+0000
```

Related Operations

- ec2-create-volume (p. 113)
- ec2-delete-volume (p. 165)
- ec2-describe-volumes (p. 308)
- ec2-attach-volume (p. 31)

ec2-detach-vpn-gateway

Description

Detaches a virtual private gateway from a VPC. You do this if you're planning to turn off the VPC and not use it anymore. You can confirm a virtual private gateway has been completely detached from a VPC by describing the virtual private gateway (any attachments to the virtual private gateway are also described).

You must wait for the attachment's state to switch to `detached` before you can delete the VPC or attach a different VPC to the virtual private gateway.

For more information about Amazon Virtual Private Cloud and virtual private gateways, go to Adding an IPsec Hardware Virtual Private Gateway to Your VPC in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2detvgw**.

Syntax

```
ec2-detach-vpn-gateway -p vpn_gateway_id  -c vpc_id
```

Options

Name	Description	Required
`-p` *`vpn_gateway_id`*	The ID of the virtual private gateway you want to detach from the VPC. Type: String Default: None Example: -p vgw-8db04f81	Yes
`-c` *`vpc_id`*	The ID of the VPC you want to detach the virtual private gateway from. Type: String Default: None Example: -c vpc-1a2b3c4d	Yes

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("VPNGATEWAY")
- VPC ID and the state of detachment (attaching, attached, detaching, detached)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example detaches the virtual private gateway with ID vgw-8db04f81 from the VPC with VPC ID vpc-1a2b3c4d.

```
PROMPT> ec2-detach-vpn-gateway -p  vgw-8db04f81  -c vpc-1a2b3c4d
VGWATTACHMENT   vpc-1a2b3c4d   detaching
```

Related Operations

- ec2-attach-vpn-gateway (p. 34)
- ec2-describe-vpn-gateways (p. 330)

ec2-disassociate-address

Description

Disassociates an Elastic IP address from the instance or network interface it's assigned to.

This action applies to both EC2 Elastic IP addresses and VPC Elastic IP addresses. For information about VPC addresses and how they differ from EC2 addresses, go to Elastic IP Addresses in the *Amazon Virtual Private Cloud User Guide*.

This is an idempotent action. If you enter it more than once, Amazon EC2 does not return an error.

The short version of this command is **ec2disaddr**.

Syntax

```
ec2-disassociate-address {ip_address | -a association_id}
```

Options

Name	Description	Required
ip_address	EC2 Elastic IP address you want to disassociate. Type: String Default: None Condition: Required for EC2 Elastic IP addresses. Example: 192.0.2.1	Conditional
-a, --association-id *assocation_id*	Association ID corresponding to the VPC Elastic IP address you want to disassociate. Type: String Default: None Condition: Required for VPC Elastic IP addresses. Example: -a eipassoc-fc5ca095	Conditional

Common Options

Option	Description
--region *REGION*	Overrides the Region specified in the EC2_URL environment variable and the URL specified by the -U option. Default: The EC2_URL environment variable, or us-east-1 if the environment variable is not set. Example: --region eu-west-1
-U, --url *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The EC2_URL environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: -U https://ec2.amazonaws.com

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ADDRESS")
- Elastic IP address you are disassociating from the instance

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example disassociates the EC2 Elastic IP address (192.0.2.1) from the instance it's assigned to.

```
PROMPT> ec2-disassociate-address 192.0.2.1
ADDRESS 192.0.2.1
```

Example Request

This example disassociates the VPC Elastic IP address with association ID eipassoc-048c746d from the instance it's assigned to.

```
PROMPT> ec2-disassociate-address -a eipassoc-048c746d
ADDRESS    eipassoc-048c746d
```

Related Operations

- ec2-allocate-address (p. 12)
- ec2-describe-addresses (p. 178)
- ec2-release-address (p. 410)
- ec2-associate-address (p. 15)

ec2-disassociate-route-table

Description

Disassociates a subnet from a route table.

After you perform this action, the subnet no longer uses the routes in the route table. Instead, it uses the routes in the VPC's main route table. For more information about route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2disrtb**.

Syntax

```
ec2-disassociate-route-table route_table_association_id
```

Options

Name	Description	Required
route_table_association_id	The association ID representing the current association between the route table and subnet. Type: String Default: None Example: rtbassoc-61a34608	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example disassociates the route table with association ID rtbassoc-fdad4894 from the subnet it's associated to.

```
PROMPT> ec2-disassociate-route-table rtbassoc-fdad4894
RETURN     true
```

Related Operations

- ec2-create-route-table (p. 98)
- ec2-associate-route-table (p. 22)

- ec2-delete-route-table (p. 153)
- ec2-describe-route-tables (p. 274)
- ec2-replace-route-table-association (p. 423)

ec2-enable-volume-io

Description

Enables I/O operations for a volume that had I/O operations disabled because the data on the volume was potentially inconsistent.

The short version of this command is **ec2evio**.

Syntax

```
ec2-enable-volume-io volume_id
```

Options

Name	Description	Required
volume_id	ID of the volume. Type: String Default: None Example: vol-43a4412a	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a Boolean value indicating whether the request succeeded.

- Boolean value representing whether the call succeeded.

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example enables the I/O operations for the volume vol-232323.

```
PROMPT> ec2-enable-volume-io vol-232323
RETURN true
```

Related Operations

- ec2-describe-volume-status (p. 316)

ec2-fingerprint-key

Description

Computes and displays the fingerprint for a private key produced by Amazon EC2.

This operation is performed entirely on the client-side. Network access is not required.

The short version of this command is **ec2fp**.

Syntax

```
ec2-fingerprint-key keyfile
```

Options

Name	Description	Required
keyfile	The path to a file containing an unencrypted PEM-encoded PKCS#8 private key. Type: String Default: None Example: mykey.pem	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- A key fingerprint. This is formatted as a hash digest with each octet separated by a colon

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example computes and displays the fingerprint for the mykey.pem private key.

```
PROMPT> ec2-fingerprint-key mykey.pem
00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
```

Related Operations

- ec2-describe-keypairs (p. 240)

ec2-get-console-output

Description

Retrieves console output for the specified instance.

Amazon EC2 instances do not have a physical monitor through which you can view their console output. They also lack physical controls that allow you to power up, reboot, or shut them down. To allow these actions, we provide them through the Amazon EC2 API and the command line tools.

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.

For Linux/UNIX instances, the Amazon EC2 instance console output displays the exact console output that would normally be displayed on a physical monitor attached to a machine. This output is buffered because the instance produces it and then posts it to a store where the instance's owner can retrieve it.

For Windows instances, the Amazon EC2 instance console output displays the last three system event log errors.

The short version of this command is **ec2gcons**.

Syntax

```
ec2-get-console-output instance_id [-r]
```

Options

Name	Description	Required
instance_id	ID of the instance. Type: String Default: None Example: i-10a64379	Yes
-r, --raw-console-output	Return raw output without escapes to facilitate reading. Type: String Default: Disabled Example: -r	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- The instance ID
- A timestamp indicating the time of the last update
- The instance console output. By default the ^ESC character is escaped and duplicate new-lines are removed to facilitate reading

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

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

```
PROMPT> ec2-get-console-output i-10a64379
i-10a64379
2010-04-08T09:20:29+0000
Linux version 2.6.21.7-2.ec2.v1.2.fc8xen (root@domU-12-34-56-0A-78-01) (gcc
version 4.1.2 20070925 (Red Hat 4.1.2-33)) #1 SMP Fri Nov 20 19:22:36 EST 2009
BIOS-provided physical RAM map:
sanitize start
sanitize bail 0
copy_e820_map() start: 0000000000000000 size: 000000006ac00000 end:
000000006ac00000 type: 1
Xen: 0000000000000000 - 000000006ac00000 (usable)
980MB HIGHMEM available.
727MB LOWMEM available.
NX (Execute Disable) protection: active
...
```

Related Operations

- ec2-run-instances (p. 458)

ec2-get-password

Description

Retrieves and decrypts the administrator password for the instances running Windows.

You must specify the key pair used to launch the instance.

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.

There is no SOAP or Query version of the `ec2-get-password` command.

Password generation and encryption takes a few moments. Please wait up to 15 minutes after launching an instance before trying to retrieve the generated password.

The short version of this command is **ec2gpass**.

Syntax

```
ec2-get-password instanceId -k key_file
```

Options

Name	Description	Required
instance_id	A Windows instance ID. Type: String Default: None Example: i-9b76d0f3	Yes
`-k, --priv-launch-key` *key_file*	The file that contains the private key used to launch the instance. Type: String Default: None Example: -k windows-keypair.pem	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- The Windows administrator password

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example returns the administrator password for the `i-2574e22a` instance.

```
PROMPT> ec2-get-password i-2574e22a -k windows-keypair.pem
q96A40B9w
```

Related Operations

- ec2-run-instances (p. 458)
- ec2-describe-instances (p. 222)

ec2-import-instance

Description

Creates a new import instance task using metadata from the specified disk image, and imports the image to Amazon EC2. For more information about prerequisites for importing an instance, go to Before You Get Started and Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2 in the *Amazon Elastic Compute Cloud User Guide*.

Note

`ec2-import-instance` and `ec2-import-volume` commands that are part of Amazon EC2 API command line tools downloaded after 09-15-2011 upload the images to Amazon EC2 after creating the import task. Previously, we used `ec2-upload-disk-image` for the upload task; `ec2-upload-disk-image` is deprecated.

If the upload task doesn't complete, use `ec2-resume-import` to resume the import from where it was interrupted.

The short version of this command is **ec2iin**.

Syntax

```
ec2-import-instance -t instance_type [-g group] -f file_format -a architecture
-b s3_bucket_name [-o owner] -w secret_key [--prefix prefix] [--manifest-url
url] [-s volume_size ] [-z availability_zone] [-d description] [--user-data
user_data] [--user-data-file disk_image_filename] [--subnet subnet_id]
[--private-ip-address ip_address] [--monitor]
[--instance-initiated-shutdown-behavior behavior ] [--x days]
[--ignore-region-affinity] [--dry-run] [--no-upload] [--dont-verify-format]
```

Options

Name	Description	Required
`-t, --instance-type` *instance_type*	Specifies the type of instance to be launched. Type: String Default: m1.small Valid Values: `m1.small` | `m1.large` | `m1.xlarge` | `c1.medium` | `c1.xlarge` | `m2.xlarge` | `m2.2xlarge` | `m2.4xlarge` Example: -t m1.small **Note** The **-a** option is only honored if the **-t** option is passed. If the **-t** option is not passed, then **-a** is treated as **i386**. If the **–t** option is not passed, the instance type defaults to **m1.small**.	Yes

Name	Description	Required
`-g, --group` *group*	The security group within which the instances should be run. Determines the ingress firewall rules that are applied to the launched instances. Only one security group is supported for an instance. Type: String Default: Your default security group Example: -g myGroup	No
`-f, --format` *file_format*	The file format of the disk image. Type: String Default: None Valid Values: `VMDK` | `RAW` | `VHD` Example: -f VMDK	Yes
`-a, --architecture` *architecture*	The architecture of the image. Type: String Default: i386 Valid Values: `i386` | `x86_64` Condition: Required if instance type is specified; otherwise defaults to i386. **Note** Using this option ensures that your image is imported as the expected instance type. The **-a** option is only honored if the **-t** option is passed. If the **-t** option is not passed, then **-a** is treated as **i386**. If the **–t** option is not passed, the instance type defaults to **m1.small**. Example: -a i386	Yes
`--bucket` *s3_bucket_name*	The Amazon S3 destination bucket for the manifest. Type: String Default: None Condition: The `--manifest-url` parameter is not specified. Example: myawsbucket	Yes
`-o, --owner-akid` *access_key_id*	Access key ID of the bucket owner. Type: String Default: None Example: AKIAIOSFODNN7EXAMPLE	No

Name	Description	Required
`-w, --owner-sak` *secret_access_key*	Secret access key of the bucket owner. Type: String Default: None Example: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY	Yes
`--prefix` *prefix*	Prefix for the manifest file and disk image file parts within the Amazon S3 bucket. Type: String Default: None Example: --prefix MyDiskParts	No
`--manifest-url` *url*	The URL for an existing import manifest file already uploaded to Amazon S3. Type: String Default: None. This option cannot be specified if the --bucket option is present. Example: my-ami.manifest.xml	No
`-s, --volume-size` *volume_size*	The size of the Amazon EBS volume, in GiB (2^30 bytes), that will hold the converted image. If not specified, EC2 calculates the value using the disk image file. Type: String Default: None Example: -s 30	No
`-z, --availability-zone` *availability_zone*	The Availability Zone for the converted VM. Type: String Default: None Valid Values: Use `ec2-describe-availability-zones` for a list of values Example: -z us-east-1	No
`-d, --description` *description*	An optional, free-form comment returned verbatim during subsequent calls to `ec2-describe-conversion-tasks`. Type: String Default: None Constraint: Maximum length of 255 characters Example: -d Test of ec2-import-instance	No
`--user-data` *user_data*	User data to be made available to the imported instance. Type: String Default: None Example: --user-data This is user data	No

Name	Description	Required
`--user-data-file` *disk_image_filename*	The file containing user data made available to the imported instance. Type: String Default: None Example: --user-data-file my_data_file	No
`--subnet` *subnet_id*	If you're using Amazon Virtual Private Cloud, this specifies the ID of the subnet into which you're launching the instance. Type: String Default: None Example: --subnet subnet-f3e6ab83	No
`--private-ip-address` *ip_address*	If you're using Amazon Virtual Private Cloud, this specifies the specific IP address within *subnet* to use. Type: String Default: None Example: --private-ip-address 10.0.0.3	No
`--monitor`	Enables monitoring of the specified instance(s). Type: String Default: None Example: --monitor	No
`--instance-initiated-shutdown-behavior` *behavior*	If an instance shutdown is initiated, this determines whether the instance stops or terminates. Type: String Default: None Valid Values: stop | terminate Example: --instance-initiated-shutdown-behavior stop	No
`-x, --expires` *days*	Validity period for the signed Amazon S3 URLS that allow EC2 to access the manifest. Type: String Default: 30 days Example: -x 10	No
`--ignore-region-affinity`	Ignore the verification check to determine that the bucket's Amazon S3 Region matches the EC2 Region where the conversion task is created. Type: None Default: None Example: --ignore-region-affinity	No
`--dry-run`	Does not create an import task, only validates that the disk image matches a known type. Type: None Default: None Example: --dry-run	No

Name	Description	Required
`--no-upload`	Does not upload a disk image to Amazon S3, only creates an import task. To complete the import task and upload the disk image, use `ec2-resume-import`. Type: None Default: None Example: --no-upload	No
`--dont-verify-format`	Does not verify the file format. We don't recommend this option because it can result in a failed conversion. Type: None Default: None Example: --dont-verify-format	No

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the following information:

- Task ID, which you will use in other commands
- General information about the disk image, such as the size and format
- General information about the import operation, such as the status, bytes received, and expiration deadline

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example creates an import instance task that migrates a Windows Server 2008 SP2 (32-bit) VM into the AWS us-east-1 Region.

```
PROMPT> ec2-import-instance ./WinSvr8-disk1.vmdk –f VMDK -o AKIAIOSFODNN7EXAMPLE
 -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY -b myawsbucket
```

Related Operations

- ec2-import-volume (p. 370)
- ec2-resume-import (p. 449)
- ec2-delete-disk-image (p. 130)
- ec2-describe-conversion-tasks (p. 189)
- ec2-cancel-conversion-task (p. 50)

ec2-import-keypair

Description

Imports the public key from an RSA key pair that you created with a third-party tool. Compare this with `ec2-create-keypair`, in which AWS creates the key pair and gives the keys to you (AWS keeps a copy of the public key). With `ec2-import-keypair`, you create the key pair and give AWS just the public key. The private key is never transferred between you and AWS.

You can easily create an RSA key pair on Windows and Linux using the `ssh-keygen` command line tool (provided with the standard OpenSSH installation). Standard library support for RSA key pair creation is also available in Java, Ruby, Python, and many other programming languages.

Supported formats:

- OpenSSH public key format (e.g., the format in ~/.ssh/authorized_keys)
- Base64 encoded DER format
- SSH public key file format as specified in RFC4716

DSA keys are not supported. Make sure your key generator is set up to create RSA keys.

Supported lengths: 1024, 2048, and 4096.

The short version of this command is **ec2ikey**.

Syntax

```
ec2-import-keypair key_name --public-key-file key_file
```

Options

Name	Description	Required
key_name	A unique name for the key pair. Type: String Default: None Constraints: Accepts alphanumeric characters, spaces, dashes, and underscores. Example: myfavoritekeypair	Yes
`-f, --public-key-file` *key_file*	Path and name of file containing the public key. Type: String Default: None Example: -f C:\keys\myfavoritekeypair_public.ppk	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- KEYPAIR identifier
- Key pair name
- MD5 public key fingerprint as specified in section 4 of RFC4716

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example imports the public key from the file C:\keys\mykey.ppk.

```
PROMPT> ec2-import-keypair gsg-keypair --public-key-file C:\keys\mykey.ppk
KEYPAIR  gsg-keypair  00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
```

Related Operations

- ec2-create-keypair (p. 79)
- ec2-describe-keypairs (p. 240)
- ec2-delete-keypair (p. 139)

ec2-import-volume

Description

Creates a new import volume task using metadata from the specified disk image, and imports the image to Amazon EC2. For more information about prerequisites for importing a volume, go to Before You Get Started and Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2 in the *Amazon Elastic Compute Cloud User Guide*.

Note

`ec2-import-instance` and `ec2-import-volume` commands that are part of Amazon EC2 API command line tools downloaded after 09-15-2011 upload the images to Amazon EC2 after creating the import task. Previously, we used `ec2-upload-disk-image` for the upload task; `ec2-upload-disk-image` is deprecated.

If the upload task doesn't complete, use `ec2-resume-import` to resume the import from where it was interrupted.

The short version of this command is **ec2ivol**.

Syntax

```
ec2-import-volume disk_image -f file_format [-s volume_size] -z availability_zone
[-b s3_bucket_name] [-o owner] -w secret_key [--prefix prefix] [--manifest-url
url] [-d description] [--x days] [--ignore-region-affinity] [--dry-run]
[--no-upload] [--dont-verify-format]
```

Options

Name	Description	Required
disk_image	The local file name of the disk image that you want to import. Type: String Default: None Example: WinSvr8-64-disk1.vmdk	Yes
`-f, --format` *file_format*	The file format of the disk image. Type: String Default: None Valid Values: `VMDK` | `RAW` | `VHD` Example: -f VMDK	Yes
`-s, --volume-size` *volume_size*	The size, in GB (2^30 bytes), of an Amazon EBS volume that will hold the converted image. If not specified, Amazon EC2 calculates the value using the disk image file. Type: String Default: None Example: -s 30	No

Name	Description	Required
`-z, --availability-zone` *zone*	The Availability Zone for the converted VM. Type: String Valid Values: Use `ec2-describe-availability-zones` for a list of values. Example: -z us-east-1	No
`-b, --bucket` *bucket*	The Amazon S3 destination bucket for the manifest. Type: String Default: None Condition: Required when the `--manifest-url` parameter is not specified. Example: -b myawsbucket	Yes
`-o, --owner-akid` *access_key_id*	Access key ID of the bucket owner. Type: String Default: None Example: AKIAIOSFODNN7EXAMPLE	No
`-w, --owner-sak` *secret_access_key*	Secret access key of the bucket owner. Type: String Default: None Example: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY	Yes
`--prefix` *prefix*	Prefix for the manifest file and disk image file parts within the Amazon S3 bucket. Type: String Default: None Example: --prefix MyDiskParts	No
`--manifest-url` *url*	The URL for an existing import manifest file already uploaded to Amazon S3. Type: String Default: None Condition: This option cannot be specified if the --bucket option is present. Example: my-ami.manifest.xml	No
`-d, --description` *description*	An optional, free-form comment returned verbatim during subsequent calls to `ec2-describe-conversion tasks`. Type: String Default: None Constraint: Maximum length of 255 characters Example: -d Test of ec2-import-instance	No

Name	Description	Required
`-x, --expires` *days*	Validity period for the signed Amazon S3 URLS that allow EC2 to access the manifest. Type: String Default: 30 days Example: -x 10	No
`--ignore-region-affinity`	Ignore the verification check to determine that the bucket's Amazon S3 Region matches the Amazon EC2 Region where the conversion-task is created. Type: None Default: None Example: --ignore-region-affinity	No
`--dry-run`	Does not create an import task, only validates that the disk image matches a known type. Type: None Default: None Example: --dry-run	No
`--no-upload`	Does not upload a disk image to Amazon S3, only creates an import task. To complete the import task and upload the disk image, use `ec2-resume-import`. Type: None Default: None Example: --no-upload	No
`--dont-verify-format`	Does not verify the file format. We don't recommend this option because it can result in a failed conversion. Type: None Default: None Example: --dont-verify-format	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the following information:

- Percent of the import completed
- Checksum value
- Information about the volume, such as the size and format

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example creates an import volume task that migrates a Windows Server 2008 (32-bit) volume into the AWS us-east-1 Region.

```
PROMPT>ec2-import-volume 123M.vmdk -f VMDK -z us-east-1a -s 9 -b myawsbucket -
o AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
```

Related Operations

- ec2-import-instance (p. 361)
- ec2-resume-import (p. 449)
- ec2-delete-disk-image (p. 130)
- ec2-describe-conversion-tasks (p. 189)
- ec2-cancel-conversion-task (p. 50)

ec2-migrate-image

Description

Copies a bundled AMI from one Region to another.

Note

This tool replaces ec2-migrate-bundle (p. 494).
This tool does not work with AMIs backed by Amazon EBS.

The short version of this command is **ec2mim**.

Syntax

```
ec2-migrate-image --private-key private_key --cert cert -U url --owner-akid
access_key_id --owner-sak secret_access_key --bucket source_s3_bucket
--destination-bucket destination_s3_bucket --manifest manifest_path --acl acl
--location {US | EU} --ec2cert ec2_cert_path [--kernel kernel-id] [--ramdisk
ramdisk_id] {--no-mapping} --region mapping_region_name
```

Options

Name	Description	Required
`-K, --private-key` *private_key*	The path to your PEM-encoded RSA key file. Type: String Default: Uses EC2_PRIVATE_KEY environment variable	No
`-C, --cert` *cert*	The user's PEM encoded RSA public key certificate file. Type: String Default: Uses EC2_CERT environment variable Example: -C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem	No
`-U, --url` *url*	Specifies the URL to use as the web service URL. Type: String Default: https://ec2.amazonaws.com Example: -U https://ec2.amazonaws.com	No
`-o, --owner-akid` *access_key_id*	Access key ID of the bucket owner. Type: String Default: None Example: -o AKIAIOSFODNN7EXAMPLE	Yes

Name	Description	Required
`-w, --owner-sak` *secret_access_key*	Secret access key of the bucket owner. Type: String Default: None Example: -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY	Yes
`--bucket` *source_s3_bucket*	The source Amazon S3 bucket where the AMI is located, followed by an optional '/'-delimited path prefix. Type: String Default: None Example: --bucket myawsbucket	Yes
`--destination-bucket` *destination_s3_bucket*	The destination Amazon S3 bucket, followed by an optional '/'-delimited path prefix. If the destination bucket does not exist, it is created. Type: String Default: None Example: --destination-bucket myotherawsbucket	Yes
`--manifest` *manifest*	The location of the Amazon S3 source manifest. Type: String Default: None Example: --manifest my-ami.manifest.xml	Yes
`--location {US | EU}`	The location of the destination Amazon S3 bucket. Type: String Valid Values: `US` | `EU` Default: US Example: --location EU	No
`--acl` *acl*	The access control list policy of the bundled image. Type: String Valid Values: `public-read` | `aws-exec-read` Default: None Example: --acl public-read	Yes
`--kernel`	The ID of the kernel to select. Type: String Default: None Example: --kernel aki-ba3adfd3	No
`--ramdisk`	The ID of the RAM disk to select. 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, refer to the Resource Center and search for the kernel ID. Type: String Default: None Example: --ramdisk ari-badbad00	No

Name	Description	Required
`--no-mapping`	Disables automatic mapping of kernels and RAM disks. Type: String Default: Mapping is enabled. Example: --no-mapping	No
`--region` *region*	Region to look up in the mapping file. Type: String Default: Amazon EC2 attempts to determine the Region from the location of the Amazon S3 bucket. Example: --region eu-west-1	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.

Option	Description
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Status messages describing the stages and status of the migration

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example copies the AMI specified in the `my-ami.manifest.xml` manifest from the US to the EU.

```
PROMPT> ec2-migrate-image --cert cert-THUMBPRINT.pem --private-key pk-THUMB
PRINT.pem --owner-akid
AKIAIOSFODNN7EXAMPLE --owner-sak wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY --
bucket myawsbucket
--destination-bucket my-eu-bucket --manifest my-ami.manifest.xml  --acl aws-
exec-read --location EU
Copying 'my-ami.part.00'...
Copying 'my-ami.part.01'...
Copying 'my-ami.part.02'...
Copying 'my-ami.part.03'...
Copying 'my-ami.part.04'...
Copying 'my-ami.part.05'...
Copying 'my-ami.part.06'...
Copying 'my-ami.part.07'...
Copying 'my-ami.part.08'...
Copying 'my-ami.part.09'...
Copying 'my-ami.part.10'...
Your new bundle is in S3 at the following location:
my-eu-bucket/my-ami.manifest.xml
```

Related Operations

- ec2-register (p. 405)
- ec2-run-instances (p. 458)

ec2-modify-image-attribute

Description

Modifies an attribute of an AMI.

Note

AWS Marketplace product codes cannot be modified. Images with an AWS Marketplace product code cannot be made public.

The short version of this command is **ec2mimatt**.

Syntax

```
ec2-modify-image-attribute ami_id {-l (-a entity | -r entity) | --product-codes code}
```

Options

Name	Description	Required
ami_id	The AMI ID. Type: String Default: None Example: ami-2bb65342	Yes
`-p, --product-codes` *code*	Product code to add to the specified Amazon S3-backed AMI. Once you add a product code to an AMI, it can't be removed. Type: String Default: None Example: -p D662E989	No
`-l, --launch-permission`	Used with the --add or --remove flags to grant or revoke launch permissions. Type: String Default: None Example: --launch-permission	Yes
`-a, --add` *entity*	Adds a launch permission for the specified AWS account or for all accounts. Type: String Valid Values: `AWS account identifier|all` Default: None Example: --launch-permission --add all	Yes

Name	Description	Required
`-r, --remove` *entity*	Removes a launch permission for the specified AWS account or for all users. Type: String Valid Values: `AWS account identifier|all` Default: None Example: --launch-permission --remove all	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.

Option	Description
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Attribute type identifier
- ID of the AMI on which attributes are being modified
- Action performed on the attribute
- Attribute or attribute list item value type
- Attribute or attribute list item value

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example makes the AMI public (i.e., so any AWS account can launch it).

```
PROMPT> ec2-modify-image-attribute ami-2bb65342 -l -a all
launchPermission   ami-2bb65342   ADD   group   all
```

Example Request

This example makes the AMI private (i.e., so only you as the owner can launch it).

```
PROMPT> ec2-modify-image-attribute ami-2bb65342 -l -r all
launchPermission  ami-2bb65342   REMOVE   group  all
```

Example Request

This example grants launch permission to the AWS account with ID 444455556666.

```
PROMPT>
     ec2-modify-image-attribute ami-2bb65342 -l -a 444455556666
launchPermission  ami-2bb65342  ADD  userId  444455556666
```

Example Request

This example removes launch permission from the AWS account with ID 444455556666.

```
PROMPT> ec2-modify-image-attribute ami-2bb65342 -l -r 444455556666
launchPermission  ami-2bb65342  REMOVE  userId  444455556666
```

Example Request

This example adds the `774F4FF8` product code to the `ami-61a54008` AMI.

```
PROMPT> ec2-modify-image-attribute ami-61a54008 -p 774F4FF8
productcodes ami-61a54008   productCode  774F4FF8
```

Related Operations

- ec2-reset-image-attribute (p. 438)
- ec2-describe-image-attribute (p. 208)

ec2-modify-instance-attribute

Description

Modifies an attribute of an instance.

Note

If you want to add instance store volumes to an Amazon EBS-backed instance, you must add them when you launch the instance. For more information, go to Overriding the AMI's Block Device Mapping in the *Amazon Elastic Compute Cloud User Guide*, or to Adding A Default Instance Store in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2minatt**.

Syntax

```
ec2-modify-instance-attribute instance_id {--instance-type type | --kernel
kernel_id | --ramdisk ramdisk_id | --user-data user_data |
--disable-api-termination Boolean | --instance-initiated-shutdown-behavior
behavior | --block-device-mapping mapping | --source-dest-check Boolean |
--group-id group_id [...] }
```

Options

Name	Description	Required
instance_id	The instance ID. Type: String Default: None Example: i-43a4412a	Yes
-t, --instance-type *type*	The type of the instance. Type: String Default: m1.small Example: -t m1.large	No
--kernel *kernel_id*	Sets the ID of the kernel associated with the AMI. Type: String Default: None Example: --kernel aki-1a2b3c4d	No
--ramdisk *ramdisk_id*	Sets the ID of the RAM disk associated with the AMI. Type: String Default: None Example: --ramdisk ari-1a2b3c4d	No

Name	Description	Required
`--user-data` *user_data*	Specifies Base64-encoded MIME user data to be made available to the instance(s) in this reservation. Type: String Default: None Example: --user-data "My user data"	No
`--disable-api-termination` *Boolean*	Specifies whether the instance can be terminated using the EC2 API. A value of `true` means you can't terminate the instance using the API (i.e., the instance is "locked"). A value of `false` means you can. You must set this attribute to `false` to "unlock" an instance and therefore be able to terminate it using the EC2 API. Type: Boolean Default: None Example: --disable-api-termination false	No
`--instance-initiated-shutdown-behavior` *behavior*	If an instance shutdown is initiated, this determines whether the instance stops or terminates. Type: String Valid Values: `stop` | `terminate` Default: `stop` Example: --instance-initiated-shutdown-behavior stop	No
`--block-device-mapping` *mapping*	Modifies the `DeleteOnTermination` atttribute for volumes that are currently attached. The volume must be owned by the caller. If no value is specified for `DeleteOnTerminaton`, the value defaults to true and the volume will be deleted when the instance is terminated. Type: BlockDeviceMapping Default: `stop` Example: --b "/dev/sdb=vol-7eb96d16:false	No
`--source-dest-check` *Boolean*	This attribute exists to enable a Network Address Translation (NAT) instance in a VPC to perform NAT. The attribute controls whether source/destination checking is enabled on the instance. A value of `true` means checking is enabled, and `false` means checking is disabled. The value must be `false` for the instance to perform NAT. For more information, go to NAT Instances in the *Amazon Virtual Private Cloud User Guide*. Type: Boolean Default: None Example: --source-dest-check false	No

Name	Description	Required
`-g, --group-id` *group_id*	This is applicable only to instances running in a VPC. Use this parameter when you want to change the security groups an instance is in. The new set of groups you specify replaces the current set. You must specify at least one group, even if it's just the default security group in the VPC. You must specify the group ID and not the group name. For example, if you want the instance to be in sg-1a1a1a1a and sg-9b9b9b9b, specify `-g sg-1a1a1a1a -g sg-9b9b9b9b`. Type: String Default: None Example: -g sg-1a1a1a1a	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.

Option	Description
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Attribute type identifier
- ID of the instance on which attributes are being modified

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example changes the kernel for the instance.

```
PROMPT> ec2-modify-instance-attribute i-10a64379 --kernel aki-f70657b2
KERNEL i-10a64379 aki-f70657b2
```

Related Operations

- ec2-reset-instance-attribute (p. 441)
- ec2-describe-instance-attribute (p. 218)

ec2-modify-network-interface-attribute

Description

Modifies a network interface attribute. Only one attribute can be specified per call.

The short version of this command is **ec2mnicatt**.

Syntax

```
ec2-modify-network-interface-attribute NETWORKINTERFACE -d, --description
DESCRIPTION -a, --attachment ATTACHMENT --delete-on-termination BOOLEAN
--source-dest-check BOOLEAN --group-id GROUP_ID
```

Options

Name	Description	Required
-d, --description DESCRIPTION	Change the description of the network interface. Type: String Default: None Example: -d "My Second ENI"	Yes
-a, --attachment ATTACHMENT	Change properties of the attachment. Type: String Default: None Constraints: Must be used in conjunction with --delete-on-termination. Example: -a eni-attach-09703260 –delete-on-termination false	Yes
--delete-on-termination BOOLEAN	Sets whether the network interface shall be deleted when the network interface is detached. Type: String Default: None Constraints: Must be used in conjunction with --attachment. Example: -a eni-attach-09703260 –delete-on-termination false	Yes
--source-dest-check BOOLEAN	Sets whether to enable the source/dest check on traffic through this network interface. Type: String Default: None Constraints: Valid options are 'true' and 'false'. Example: --source-dest-check false	Yes

Name	Description	Required
--group-id GROUP_ID	Replace the security groups for this network interface. Type: String Default: None Example: --group-id sg-b90619d5 –groupd id sg-a92639c9	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.

Option	Description
-	If - is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the name of the attribute that was modified.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example adds a description to the network interface.

```
PROMPT> ec2-modify-network-interface-attribute eni-b35da6da -d "This is an ENI"
NETWORKINTERFACE    eni-b35da6da    description
```

This example turns off source/destination checking for network traffic across the network interface.

```
PROMPT> ec2-modify-network-interface-attribute eni-b35da6da --source-dest-check
 false
NETWORKINTERFACE    eni-b35da6da    sourceDestCheck
SOURCEDESTCHECK    false
```

This example changes the security group for the specified network interface.

```
PROMPT> ec2-modify-network-interface-attribute eni-b35da6da --group-id sg-
8ea1bce2
NETWORKINTERFACE    eni-b35da6da    group
GROUPID             sg-8ea1bce2
```

This example retains the network interface when it is detached from an instance.

```
PROMPT> ec2-modify-network-interface-attribute eni-b35da6da --delete-on-termin
ation false -a eni-attach-083fda61
NETWORKINTERFACE    eni-b35da6da    attachment
```

Related Operations

- ec2-create-network-interface (p. 89)
- ec2-delete-network-interface (p. 146)
- ec2-describe-network-interfaces (p. 248)
- ec2-describe-network-interface-attribute (p. 254)

- ec2-attach-network-interface (p. 28)
- ec2-detach-network-interface (p. 337)
- ec2-reset-network-interface-attribute (p. 444)

ec2-modify-snapshot-attribute

Description

Adds or remove permission settings for the specified snapshot.

The short version of this command is **ec2msnapatt**.

Note

Snapshots with AWS Marketplace product codes cannot be made public.

Syntax

```
ec2-modify-snapshot-attribute snapshot_id -c [--add entity | --remove entity]
```

Options

Name	Description	Required
snapshot_id	The ID of the snapshot. Type: String Default: None Example: snap-78a54011	Yes
-c, --create-volume-permission	Modifies the create volume permissions of the snapshot. Type: String Default: None Example: -c	Yes
-a, --add *entity*	Adds a permission for the specified AWS account or for all accounts. Type: String Valid Values: AWS account identifier|all Default: None Example: -c --add all	
--remove *entity*	Removes a permission for the specified AWS account or for all accounts. Type: String Valid Values: AWS account identifier|all Default: None Example: -c --remove all	

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- createVolumePermission Identifier
- Snapshot ID
- Account IDs or 'all'
- Attribute type identifier
- ID of the snapshot on which attributes are being modified
- Action performed on the attribute
- Attribute or attribute list item value type
- Attribute or attribute list item value

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example makes the snap-78a54011 snapshot public.

```
PROMPT> ec2-modify-snapshot-attribute snap-7ddb6e14 -c --add 123456789012
createVolumePermission snap-7ddb6e14 ADD userId 123456789012
```

Related Operations

- ec2-describe-snapshot-attribute (p. 279)
- ec2-describe-snapshots (p. 282)
- ec2-reset-snapshot-attribute (p. 446)
- ec2-create-snapshot (p. 101)

ec2-modify-volume-attribute

Description

Modifies a volume attribute.

By default, all I/O operations for the volume are suspended when the data on the volume is determined to be potentially inconsistent, to prevent undetectable, latent data corruption. The I/O access to the volume can be resumed by first issuing the ec2-enable-volume-io (p. 351) command to enable I/O access and then checking the data consistency on your volume.

You can change the default behavior to resume I/O operations without issuing the ec2-enable-volume-io (p. 351) command by setting the `auto-enable-io` attribute of the volume to `true`. We recommend that you change this attribute only for volumes that are stateless or disposable, or for boot volumes.

The short version of this command is **ec2mvolatt**.

Syntax

```
ec2-modify-volume-attribute volume_id ... --attribute_flag ATTRIBUTE_VALUE
```

Options

Name	Description	Required
volume_id	The ID of the volume. Type: String Example: vol-4282672b	Yes
-a --auto-enable-io	Set whether or not the specified volume should be auto-enabled for I/O operations. Example: --auto-enable-io true	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- ID of the volume
- A Boolean value for the attribute

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example modifies the attribute of the volume vol-999999.

```
PROMPT> ec2-modify-volume-attribute vol-999999  --auto-enable-io true
VolumeId     Attribute
vol-999999   autoEnableIo
AUTO-ENABLE-IO true
```

Related Operations

- ec2-describe-volume-status (p. 316)
- ec2-describe-volume-attribute (p. 313)
- ec2-enable-volume-io (p. 351)

ec2-monitor-instances

Description

Enables monitoring for a running instance. For more information, go to Monitoring Your Instances and Volumes in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2min**.

Syntax

```
ec2-monitor-instances instance_id [instance_id...]
```

Options

Name	Description	Required
instance_id	Instance ID. Type: String Default: None Example: i-43a4412a	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Instance ID
- Monitoring state

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

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

```
PROMPT> ec2-monitor-instances i-43a4412a i-23a3397d
i-43a4412a monitoring-pending
 i-23a3397d monitoring-pending
```

Related Operations

- ec2-unmonitor-instances (p. 476)
- ec2-run-instances (p. 458)

ec2-purchase-reserved-instances-offering

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.

Starting with the 2011-11-01 API version, AWS expanded its offering of Amazon EC2 Reserved Instances to address a range of projected instance use. There are three types of Reserved Instances based on customer utilization levels: *Heavy Utilization*, *Medium Utilization*, and *Light Utilization*. You determine the type of the Reserved Instances offerings by including the optional *`offering-type`* parameter when calling `ec2-describe-reserved-instances-offerings`. After you've identified the Reserved Instance with the offering type you want, specify its *`--offering`* when you call `ec2-purchase-reserved-instances-offering`.

The Medium Utilization offering type is equivalent to the Reserved Instance offering available before API version 2011-11-01. If you are using tools that predate the 2011-11-01 API version, `ec2-describe-reserved-instances-offerings` will only list information about the `Medium Utilization` Reserved Instance offering type.

For more information about Reserved Instances, go to Reserved Instances in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2prio**.

Syntax

`ec2-purchase-reserved-instances-offering --offering` ***`offering`*** **`--instance-count`** ***`count`***

Options

Name	Description	Required
`-o, --offering` *`offering`*	The offering ID of the Reserved Instance to purchase. Type: String Default: None Example: -o 4b2293b4-5813-4cc8-9ce3-1957fc1dcfc8	Yes
`-c, --instance-count` *`count`*	The number of Reserved Instances to purchase. Type: Integer Default: 1 Example: -c 5	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- RESERVEDINSTANCES identifier
- The ID(s) of the purchased Reserved Instances

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example illustrates a purchase of a Reserved Instances offering.

```
PROMPT> ec2-purchase-reserved-instances-offering --offering 649fd0c8-becc-49d9-
b259-fc8e2aa08833 --instance-count 3
RESERVEDINSTANCES b847fa93-0c31-405b-b745-b6bf00032333
 b847fa93-0c31-405b-b745-b6bf00032334 b847fa93-0c31-405b-b745-b6bf00032335
```

Related Operations

- ec2-describe-reserved-instances-offerings (p. 268)
- ec2-describe-reserved-instances (p. 263)

ec2-reboot-instances

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.

The short version of this command is **ec2reboot**.

Syntax

```
ec2-reboot-instances instance_id [instance_id ...]
```

Options

Name	Description	Required
instance_id	One or more instance IDs of instances to be rebooted. Type: String Default: None Example: i-3ea74257	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- This command displays no output on success

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example reboots an instance.

```
PROMPT> ec2-reboot-instances i-28a64341
-
```

Related Operations

- ec2-run-instances (p. 458)

ec2-register

Description

Registers a new AMI with Amazon EC2. When you're creating an AMI, this is the final step you must complete before you can launch an instance from the AMI. For more information about creating AMIs, go to Creating Your Own AMIs in the *Amazon Elastic Compute Cloud User Guide*.

Note

For Amazon EBS-backed instances, the `ec2-create-image` command creates and registers the AMI in a single request, so you don't have to register the AMI yourself.

You can also use the `ec2-register-image` action to create an EBS-backed AMI from a snapshot of a root device volume. For more information, go to Launching an Instance from a Snapshot in the *Amazon Elastic Compute Cloud User Guide*.

If needed, you can deregister an AMI at any time. Any modifications you make to an AMI backed by Amazon S3 invalidates its registration. If you make changes to an image, deregister the previous image and register the new image.

The short version of this command is **ec2reg**.

Note

You cannot register an image where a secondary (non-root) snapshot has AWS Marketplace product codes.

Syntax

```
ec2-register {[manifest] -n name [-a architecture] [-b mapping [...]] [-d
description] [-s snapshot_id] [--kernel kernel_id] [--ramdisk ramdisk_id]
[--root-device-name name]}
```

Options

Name	Description	Required
manifest	Full path to your AMI manifest in Amazon S3 storage. Type: String Default: None Condition: Required if registering an Amazon-S3 backed AMI. Example: myawsbucket/image.manifest.xml	Conditional

Name	Description	Required
`-n, --name` *name*	A name for your AMI. Type: String Default: None Constraints: 3-128 alphanumeric characters, parenthesis (()), commas (,), slashes (/), dashes (-), or underscores(_) Example: -n "Standard Web Server"	Yes
`-d, --description` *description*	The description of the AMI. Type: String Default: None Constraints: Up to 255 characters. Example: -d "Standard Web Server AMI"	No
`-a, --architecture` *architecture*	The architecture of the image. Type: String Valid Values: `i386` | `x86_64` Default: None Example: -a i386	No
`--kernel`	The ID of the kernel associated with the image. Type: String Default: None Example: --kernel aki-ba3adfd3	No
`--ramdisk`	The ID of the RAM disk to associate with the image. 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, refer to the Resource Center and search for the kernel ID. Type: String Default: None Example: --ramdisk ari-badbad00	No
`--root-device-name` *name*	The root device name (e.g., /dev/sda1, or xvda). Type: String Default: /dev/sda1 Condition: Required if registering an Amazon EBS-backed AMI. Example: --root-device-name /dev/sda1	No

Name	Description	Required
`-b, --block-device-mapping` *`mapping`*	Defines a block device mapping for the instance. This argument is passed in the form of **`<devicename>=<blockdevice>`**. The *`devicename`* is the name of the device within Amazon EC2. The *`blockdevice`* can be one of the following values: • *`none`* - specifies that an existing mapping of the device from the AMI used to launch the instance should be suppressed. For example: `/dev/sdc=none` • *`ephemeral[0..3]`* - specifies an instance store volume to be mapped to the device. Example: `/dev/sdc=ephemeral0` • *`[snapshot-id]:[size]:[delete-on-termination (true|false)]`* - specifies an EBS volume to be mapped to the device. To create a volume from a snapshot, specify the snapshot ID. To create an empty EBS volume, omit the snapshot ID and pass in a volume size instead; for example: `/dev/sdb=:20`. You can also specify whether the EBS volume should be deleted on termination of the instance; this value is true by default. You can specify multiple *`block-device-mapping`* arguments in one call. For more detailed information about block device mapping, see Block Device Mapping in the *Amazon Elastic Compute Cloud User Guide*. Type: String Default: None Condition: If registering an Amazon EBS-backed AMI from a snapshot, at a minimum you must specify a block device mapping entry for the root device. Be sure to include the device name (e.g., /dev/sda1 or xvda) and the snapshot ID. Example: -b "/dev/sda1=snap-7eb96d16" **Note** On Windows, the *`mapping`* argument must be enclosed in double quotes, as shown in the example.	Conditional
`-s, --snapshot` *`snapshot`*	The ID of the Amazon EBS snapshot to be used as the root device. Type: String Default: None Example: -s snap-78a54011	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- IMAGE identifier
- Unique ID of the newly registered machine image

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example registers the AMI specified in the `image.manifest.xml` manifest file, located in the bucket named `myawsbucket`.

```
PROMPT> ec2-register myawsbucket/image.manifest.xml -n MyImage
IMAGE ami-78a54011
```

Example Request

This example registers an Amazon EBS snapshot to create an AMI backed by Amazon EBS.

```
PROMPT> ec2-register -n MyImage -s snap-65e34ab22
IMAGE ami-78a54023
```

Example Request

This example registers the AMI with an Amazon EBS snapshot as the root device, a separate snapshot as a secondary device, and an empty 100 GiB Amazon EBS volume as a storage device.

```
PROMPT> ec2-register -n MyImage -s snap-6e3ad879 -b /dev/sdb=snap-823ea6df -b
/dev/sdc=:100
IMAGE ami-78a54043
```

Related Operations

- ec2-describe-images (p. 211)
- ec2-deregister (p. 176)
- ec2-run-instances (p. 458)

ec2-release-address

Description

Releases an Elastic IP address allocated to your account.

This command applies to both EC2 Elastic IP addresses and VPC Elastic IP addresses. For information about VPC addresses and how they differ from EC2 addresses, go to the Elastic IP Addresses in the *Amazon Virtual Private Cloud User Guide*.

If you run this action 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 (`AuthFailure`).

Note

For EC2 addresses only: Releasing an IP address automatically disassociates it from any instance it's associated with. To disassociate an IP address without releasing it, use the `ec2-diassociate-address` command.

If you try to release a VPC address that's associated with an instance, Amazon EC2 returns an error (`InvalidIPAddress.InUse`).

Important

After releasing an Elastic IP address, it is released to the IP address pool and might be unavailable to your account. Make sure to update your DNS records and any servers or devices that communicate with the address.

The short version of this command is **ec2reladdr**.

Syntax

```
ec2-release-address [ip_address | -a allocation_id}
```

Options

Name	Description	Required
ip_address	The EC2 Elastic IP address to release. Type: String Default: None Condition: Required for EC2 Elastic IP addresses. Example: 192.0.2.1	Conditional
`-a, --allocation-id` *allocation_id*	The allocation ID that AWS provided when you allocated the address for use with Amazon VPC. Type: String Default: None Condition: Required for VPC Elastic IP addresses. Example: -a eipalloc-5723d13e	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ADDRESS")
- Elastic IP address that you are releasing

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example releases an EC2 Elastic IP address.

```
PROMPT> ec2-release-address 192.0.2.1
ADDRESS 192.0.2.1
```

Example Request

This example releases a VPC Elastic IP address associated with the account.

```
PROMPT> ec2-release-address -a eipalloc-5723d13e
ADDRESS         eipalloc-5723d13e
```

Related Operations

- ec2-allocate-address (p. 12)
- ec2-describe-addresses (p. 178)
- ec2-associate-address (p. 15)
- ec2-disassociate-address (p. 345)

ec2-replace-network-acl-association

Description

Changes which network ACL a subnet is associated with. By default when you create a subnet, it's automatically associated with the default network ACL. For more information about network ACLs, go to Network ACLs in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2repnaclassoc**.

Syntax

```
ec2-replace-network-acl-association network_acl_association_id -a network_acl_id
```

Options

Name	Description	Required
network_acl_association_id	The ID representing the current association between the original network ACL and the subnet. Type: String Default: None Example: aclassoc-33ae4b5a	Yes
`-a, --network-acl` *network_acl_id*	The ID of the new ACL to associate with the subnet. Type: String Default: None Example: -a acl-10b95c79	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ASSOCIATION")
- The new association ID and the network ACL ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example starts with a network ACL associated with a subnet, and a corresponding association ID aclassoc-e5b95c8c. You want to associate a different network ACL (acl-5fb85d36) with the subnet. The result is a new association ID representing the new association.

```
PROMPT> ec2-replace-network-acl-association aclassoc-e5b95c8c -a acl-5fb85d36
ASSOCIATION    aclassoc-17b85d7e acl-5fb85d36
```

Related Operations

- ec2-create-network-acl (p. 82)
- ec2-delete-network-acl (p. 141)
- ec2-describe-network-acls (p. 243)

ec2-replace-network-acl-entry

Description

Replaces an entry (i.e., rule) in a network ACL. For more information about network ACLs, go to Network ACLs in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2repnae**.

Syntax

```
ec2-replace-network-acl-entry acl_id -n rule_number [--egress] -P protocol -r
cidr [-p port_range] [-t icmp_type_code] { --allow | --deny }
```

Options

Name	Description	Required
acl_id	ID of the ACL where the entry will be replaced. Type: String Default: None Example: acl-5fb85d36	Yes
-n, --rule-number *rule_number*	Rule number of the entry to replace. Type: Number Default: None Example: -n 100	Yes
--egress	Optional flag to indicate to replace the egress rule. Default: If no value is specified, we replace the ingress rule	No
-P, --protocol *protocol*	IP protocol. You can specify all or -1 to mean all protocols. Type: String Valid Values: all | -1 | tcp | udp | icmp or any protocol number (for a list, go to Protocol Numbers). Example: -P 6	Yes
-r, --cidr *cidr*	The CIDR range to allow or deny, in CIDR notation. Type: String Default: None Example: -r 172.16.0.0/24	Yes

Name	Description	Required
`-p, --port-range` *port_range*	For the TCP or UDP protocols, this specifies the range of ports to allow. Type: String Default: None Valid Values: A single integer or a range (min-max). You can specify -1 to mean all ports (i.e. port range 0-65535). Condition: Required if specifying `tcp` or `udp` (or the equivalent number) for the protocol. Example: -p 80-84	Conditional
`-t, --icmp-type-code` *icmp_type_code*	For the ICMP protocol, this specifies the ICMP type and code using format `type:code`, where both are integers. You can use -1 for the type or code to mean all types or all codes Type: String Default: None Condition: Required if specifying `icmp` (or the equivalent number) for the protocol. Example: -t -1:-1	Conditional
`--allow`	Specifies that any traffic matching the rule is allowed. Condition: Either --allow or --deny must be specified, but not both.	Conditional
`--deny`	Specifies that any traffic matching the rule is denied. Condition: Either --allow or --deny must be specified, but not both.	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example replaces the egress entry numbered 110 in the network ACL with ID acl-2cb85d45. The new rule denies egress traffic destined for anywhere (0.0.0.0/0) on TCP port 139.

```
PROMPT> ec2-replace-network-acl-entry acl-2cb85d45 -n 110 --egress -r 0.0.0.0/0
 -P tcp -p 139 --deny
RETURN   true
```

Related Operations

- ec2-delete-network-acl-entry (p. 143)
- ec2-create-network-acl-entry (p. 85)
- ec2-describe-network-acls (p. 243)

ec2-replace-route

Description

Replaces an existing route within a route table in a VPC. For more information about route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2reprt**.

Syntax

```
ec2-replace-route route_table_id -r cidr {-g gateway_id | -i instance_id | -n,
--network-interface NETWORKINTERFACE}
```

Options

Name	Description	Required
route_table_id	The ID of the route table where the route will be replaced. Type: String Default: None Example: rtb-5da34634	Yes
-r, --cidr *cidr*	The CIDR address block used for the destination match. Routing decisions are based on the most specific match. Type: String Default: None Example: -r 0.0.0.0/0	Yes
-g, --gateway *gateway_id*	The ID of a gateway in your VPC. Type: String Default: None Condition: You must provide one of the following: a gateway ID, instance ID, or a network interface ID. Example: -g igw-68a34601	Conditional
-i, --instance *instance_id*	The ID of a NAT instance in your VPC. Type: String Default: None Condition: You must provide one of the following: a gateway ID, instance ID, or a network interface ID. Example: -i i-a7c871e3	Conditional

Name	Description	Required
`-n, --network-interface` *NETWORKINTERFACE*	The network interface associated with the route. Type: String Default: None Condition: You must provide one of the following: a gateway ID, instance ID, or a network interface. Example: -n eni-5b729933	Conditional

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.

Option	Description
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Boolean true or false

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example replaces a route in the route table with ID rtb-e4ad488d. The new route matches the CIDR 10.0.0.0/8 and sends it to the virtual private gateway with ID vgw-1d00376e.

```
PROMPT> ec2-replace-route rtb-e4ad488d -r 10.0.0.0/8 -g vgw-1d00376e
RETURN  true
```

Related Operations

- ec2-create-route (p. 95)
- ec2-delete-route (p. 150)
- ec2-describe-route-tables (p. 274)

ec2-replace-route-table-association

Description

Changes the route table associated with a given subnet in a VPC.

You can also use this to change which table is the main route table in the VPC. You just specify the main route table's association ID and the route table that you want to be the new main route table.

After you execute this action, the subnet uses the routes in the new route table it's associated with. For more information about route tables, go to Route Tables in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2reprtbassoc**.

Syntax

```
ec2-replace-route-table-association route_table_association_id -r route_table_id
```

Options

Name	Description	Required
route_table_association_id	The ID for the existing association to replace (which was returned to you when you associated the original route table with subnet). Type: String Default: None Example: rtbassoc-93a045fa	Yes
`-r` *route_table_id*	The ID of the new route table to associate with the subnet. Type: String Default: None Example: -r rtb-6aa34603	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("ASSOCIATION")
- The new association ID
- The route table ID

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example starts with a route table associated with a subnet, and a corresponding association ID rtbassoc-f8ad4891. You want to associate a different route table (table rtb-f9ad4890) to the subnet. The result is a new association ID representing the new association.

```
PROMPT> ec2-replace-route-table-association rtbassoc-f8ad4891 -r rtb-f9ad4890
ASSOCIATION   rtbassoc-61a34608 rtb-f9ad4890
```

Related Operations

- ec2-create-route-table (p. 98)
- ec2-disassociate-route-table (p. 348)
- ec2-delete-route-table (p. 153)
- ec2-describe-route-tables (p. 274)
- ec2-replace-route-table-association (p. 423)

ec2-report-instance-status

Description

Reports the status for instances that you own.

Use this action to report an instance's status. This action works only for instances that are in the `running` state. If you disagree with the instance status returned by the `ec2-report-instance-status` action, use `ec2-report-instance-status` command to report a more accurate status. Amazon EC2 collects this information to improve the accuracy of status checks.

Note

Use of this action does not change the value returned by `ec2-report-instance-status`.

To report an instance's status, specify an instance ID with the *`INSTANCE`* parameter and a reason code with the *`--reason`* parameter that applies to that instance. The following table contains descriptions of all available reason codes.

Reason Code	Description
instance-stuck-in-state	My instance is stuck in a state.
unresponsive	My instance is unresponsive.
not-accepting-credentials	My instance is not accepting my credentials.
password-not-available	A password is not available for my instance.
performance-network	My instance is experiencing performance problems which I believe are network related.
performance-instance-store	My instance is experiencing performance problems which I believe are related to the instance stores.
performance-ebs-volume	My instance is experiencing performance problems which I believe are related to an EBS volume.
performance-other	My instance is experiencing performance problems.
other	Other, explained in the submitted description parameter.

The short version of this command is **ec2rep**.

Syntax

```
ec2-report-instance-status [instance_id ...] [[--filter name=value] ...]
```

Options

Name	Description	Required
instance_id	Instance IDs to describe. Type: String Example: i-15a4417c	Yes
--status	The status of all instances listed in the *instance_id* parameter. Type: String Valid Values: `ok` | `impaired`	Yes
`--reason`	A reason code that describes a specific instance's health state. Each code you supply corresponds to an instance ID that you supply with the *InstanceID.n* parameter. See the Description (p. 426) section for descriptions of each reason code. Type: String Valid Values: `instance-stuck-in-state` | `unresponsive` | `not-accepting-credentials` | `password-not-available` | `performance-network` | `performance-instance-store` | `performance-ebs-volume` | `performance-other` | `other`	Yes
--start-time	The time at which the reported instance health state began. The date uses the format: yyyy-MM-dd'T'HH:mm:ss Type: DateTime Example: 2011-07-25T14:00:00	No
--end-time	The time at which the reported instance health state ended. The date uses the format: yyyy-MM-dd'T'HH:mm:ss Type: DateTime Example: 2011-07-25T14:00:00	No
--description	Descriptive text about the instance health state. Type: String Default: None	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- The request ID
- A Boolean return value that indicates whether Amazon EC2 accepted the values.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example reports the current state of the instance as impaired.

```
PROMPT> ec2-report-instance-status i-15a4417c --status="impaired" --reason="un
responsive"
```

Related Operations

- ec2-describe-instance-status (p. 231)

ec2-request-spot-instances

Description

Creates a Spot Instance request. Spot Instances are instances that Amazon EC2 starts on your behalf when the maximum price that you specify exceeds the current Spot Price. Amazon EC2 periodically sets the Spot Price based on available Spot Instance capacity and current Spot Instance requests. For more information about Spot Instances, go to Spot Instances in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2rsi**.

Syntax

```
ec2-request-spot-instances ami_id --addressing addressing_type --price price
[--instance-count count] [--type type] [--valid-from timestamp] [--valid-until
timestamp] [--launch-group group] [--availability-zone-group group] [--user-data
data | --user-data-file data-file] [--group group [--group group ...]] [--key
key-pair] [--instance-type type] [--subnet subnet_id] [--availability-zone zone]
[--kernel kernel] [--ramdisk ramdisk] [--block-device-mapping mapping]
[--monitor] [--iam-profile arn|name]
```

Options

Name	Description	Required
ami_id	The AMI ID. Type: String Default: None Example: ami-2bb65342	Yes
`-p, --price` *price*	Specifies the maximum hourly price for any Spot Instance launched to fulfill the request. Type: String Default: None Example: -p .15	Yes
`-n, --instance-count` *count*	The maximum number of Spot Instances to launch. Type: xs:integer Default: 1 Example: -n 10	No
`-r, --type` *type*	Specifies the Spot Instance request type. Type: String Valid Values: `one-time` | `persistent` Default: one-time Example: -r persistent	No

Name	Description	Required
`-s, --subnet` *subnet_id*	Specifies the ID of the Amazon VPC subnet in which to launch the Spot Instance. Type: String Default: None Example: -s subnet-baab943d3	No
`--valid-from` *date*	Start date of the request. If this is a one-time request, the request becomes active at this date and time and remains active until all instances launch, the request expires, or the request is canceled. If the request is persistent, the request becomes active at this date and time and remains active until it expires or is canceled. Type: DateTime Default: Request is effective indefinitely. Example: --valid-from 2009-12-31T11:51:50	No
`--valid-until` *date*	End date of the request. If this is a one-time request, the request remains active until all instances launch, the request is canceled, or this date is reached. If the request is persistent, it remains active until it is canceled or this date and time is reached. Type: DateTime Default: Request is effective indefinitely. Example: --valid-until 2009-12-31T11:51:50	No
`--launch-group` *group*	Specifies the instance launch group. Launch groups are Spot Instances that launch together and terminate together. Type: String Default: Instances are launched and terminated individually. Example: --launch-group Skynet	No

Name	Description	Required
`--availability-zone-group` *group*	The user-specified name for a logical grouping of bids. When you specify `--availability-zone-group` in a Spot Instance request, all Spot Instances in the request are launched in the same Availability Zone. Instance proximity is maintained with this parameter, but choice of Availability Zone is not. `--availability-zone-group` applies only to bids for Spot Instances of the same instance type. Any additional Spot Instance requests that are specified with the same `--availability-zone-group` name will be launched in that same Availability Zone, as long as at least one instance from the group is still active. If there is no active instance running in the Availability Zone group that you specify for a new Spot Instance request (i.e., all instances are terminated, the bid is expired, or the bid falls below current market), then Amazon EC2 will launch the instance in any Availability Zone where the constraint can be met. Consequently, the subsequent set of Spot Instances could be placed in a different zone from the original request, even if the same `--availability-zone-group` name was specified. To ensure that all Spot Instances across all bids are launched into a particular Availability Zone, specify *LaunchSpecification.Placement.AvailabilityZone* in the API or `--availability-zone` in the CLI. Type: String Default: Instances are launched in any available Availability Zone. Example: --availability-zone-group batchGroup01	No
`--placement-group` *group_name*	The name of an existing placement group you want to launch the instance into (for cluster instances). Type: String Default: Instances are launched in the default placement group. Example: --placement-group default	No
`-d, --user-data` *user_data*	Specifies the user data that will be made available to the instances. Type: String Default: None Example: -d "My user data"	No
`-g, --group` *group*	Name of the security group. Type: String Default: User's default group. Example: -g websrv	No

Name	Description	Required
`-k, --key` *key_name*	The name of the key pair. Type: String Default: None Example: -k MyKeyPair	No
`-t, --instance-type` *instance_type*	Specifies the instance type. Type: String Valid Values: `m1.small` | `m1.large` | `m1.xlarge` | `c1.medium` | `c1.xlarge` | `m2.xlarge` | `m2.2xlarge` | `m2.4xlarge` | `t1.micro` Default: m1.small Example: -t m1.large	No
`-z, --availability-zone` *zone*	The placement constraint (i.e., specific Availability Zone) for launching the instances. Specify if you want all of the Spot Instances in all of your bids to be launched in a particular Availability Zone. Specifying this option requires Amazon EC2 to find capacity in the specified Availability Zone instead of letting Amazon EC2 pick the best Availability Zone available; this can potentially delay the fulfillment of your bid, and/or require a higher bid price. Type: String Default: Amazon EC2 selects an Availability Zone in the current Region. Example: -z us-east-1b	No
`--kernel` *kernel*	The ID of the kernel to select. Type: String Default: None Example: --kernel aki-ba3adfd3	No
`--ramdisk` *ramdisk*	The ID of the RAM disk to select. Some kernels require additional drivers at launch. Check the kernel requirements for information on whether you need to specify a RAM disk and search for the kernel ID. Type: String Default: None Example: --ramdisk ari-badbad00	No

Name	Description	Required
`-b, --block-device-mapping` *`mapping`*	Defines a block device mapping for the instance. This argument is passed in the form of **`<devicename>=<blockdevice>`**. The *`devicename`* is the name of the device within Amazon EC2. The *`blockdevice`* can be one of the following values: • *`none`* - specifies that an existing mapping of the device from the AMI used to launch the instance should be suppressed. For example: `/dev/sdc=none` • *`ephemeral[0..3]`* - specifies an instance store volume to be mapped to the device. Example: `/dev/sdc=ephemeral0` • *`[snapshot-id]:[size]:[delete-on-termination (true|false)]`* - specifies an EBS volume to be mapped to the device. To create a volume from a snapshot, specify the snapshot ID. To create an empty EBS volume, omit the snapshot ID and pass in a volume size instead; for example: `/dev/sdb=:20`. You can also specify whether the EBS volume should be deleted on termination of the instance; this value is true by default. You can specify multiple *`block-device-mapping`* arguments in one call. For more detailed information about block device mapping, see Block Device Mapping in the *Amazon Elastic Compute Cloud User Guide*. Type: String Default: None Example: -b "/dev/sdb=snap-92d333fb::false" **Note** On Windows, the *`mapping`* argument must be enclosed in double quotes, as shown in the example.	No
`--monitor`	Enables monitoring for the instance. Type: String Default: Disabled Example: --monitor	No

Name	Description	Required
`--iam-profile` *arn|name*	Specifies the IAM instance profile to associate with the launched instance(s). IAM instance profiles enable you to manage permissions for applications running on EC2. This is either the Amazon Resource Name (ARN) of the instance profile (e.g., arn:aws:iam::111111111111:instance-profile/s3access) or the name of the role (e.g., s3access). Type: String Default: None Example: arn:aws:iam::111111111111:instance-profile/s3access	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("SPOTINSTANCEREQUEST")
- ID of the Spot Instance request
- Price
- Type (one-time or persistent)
- Product description (Linux/UNIX, Windows)
- State (active, open, closed, cancelled, failed)
- Create time
- Valid from
- Valid until
- Launch group
- Availability Zone group
- Image ID
- Instance type
- Key pair name
- Security group
- Monitoring status

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example creates a Spot Instances request for three m1.small instances.

```
PROMPT> ec2-request-spot-instances ami-b232d0db -p 0.04 --key gsg-keypair --
group default --instance-type m1.small -n 3 --type one-time
SPOTINSTANCEREQUEST     sir-7545a802    0.04    one-time        Linux/UNIX
  open    2010-04-07T16:57:04+0200
ami-b232d0db    m1.small gsg-keypair      default                         mon
```

```
itoring-disabled
SPOTINSTANCEREQUEST     sir-26d36202    0.04    one-time        Linux/UNIX
  open    2010-04-07T16:57:04+0200
ami-b232d0db    m1.small gsg-keypair      default                         mon
itoring-disabled
SPOTINSTANCEREQUEST     sir-63fb5402    0.04    one-time        Linux/UNIX
  open    2010-04-07T16:57:04+0200
ami-b232d0db    m1.small gsg-keypair      default                         mon
itoring-disabled
```

Related Operations

- ec2-describe-spot-instance-requests (p. 289)
- ec2-cancel-spot-instance-requests (p. 55)
- ec2-describe-spot-price-history (p. 295)

ec2-reset-image-attribute

Description

Resets an attribute of an AMI to its default value.

Note

The productCodes attribute cannot be reset.

The short version of this command is **ec2rimatt**.

Syntax

```
ec2-reset-image-attribute ami_id -l
```

Options

Name	Description	Required
ami_id	ID of the AMI on which the attribute will be reset. Type: String Default: None Example: ami-15a4417c	Yes
`-l`, `--launch-permission`	Describes the launch permissions of the AMI. Type: String Default: None Example: -l	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Attribute type identifier
- ID of the AMI on which the attribute is being reset
- Action identifier ("RESET")

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example resets the `launchPermission` attribute.

```
PROMPT> ec2-reset-image-attribute ami-6ba54002 -l
launchPermission ami-6ba54002 RESET
```

Related Operations

- ec2-modify-image-attribute (p. 379)
- ec2-describe-image-attribute (p. 208)

ec2-reset-instance-attribute

Description

Resets an attribute of an instance to its default value. To reset the kernel or RAM disk, the instance must be in a stopped state. To reset the `SourceDestCheck`, the instance can be either running or stopped.

The `SourceDestCheck` attribute exists to enable a Network Address Translation (NAT) instance in a VPC to perform NAT. The attribute controls whether source/destination checking is enabled on the instance. The default value is `true`, which means checking is enabled. The value must be `false` for the instance to perform NAT. For more information, go to NAT Instances in the *Amazon Virtual Private Cloud User Guide*.

The short version of this command is **ec2rinatt**.

Syntax

```
ec2-reset-instance-attribute instance_id { --kernel kernel_id | --ramdisk ramdisk_id | --source-dest-check }
```

Options

Name	Description	Required
instance_id	ID of the instance on which the attribute will be reset. Type: String Default: None Example: i-43a4412a	Yes
`--kernel`	Resets the ID of the kernel. Type: String Default: None Example: --kernel	No
`--ramdisk`	Resets the ID of the RAM disk. Type: String Default: None Example: --ramdisk	No
`--source-dest-check`	Resets the `SourceDestCheck` flag to `true` (which means source/destination checking is enabled). Type: String Default: None Example: --source-dest-check	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Attribute type identifier
- ID of the instance on which the attribute is being reset
- Action identifier ("RESET")

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example resets the `kernel` attribute.

```
PROMPT> ec2-reset-instance-attribute i-10a64379 --kernel
kernel i-10a64379 RESET
```

Related Operations

- ec2-modify-instance-attribute (p. 383)
- ec2-describe-instance-attribute (p. 218)

ec2-reset-network-interface-attribute

Description

Resets a network interface attribute. Only one attribute can be specified per call.

The short version of this command is **ec2rnicatt**.

Syntax

```
ec2-reset-network-interface-attribute NETWORKINTERFACE --source-dest-check
```

Options

Name	Description	Required
--source-dest-check	Sets the source/dest check to the default value. Type: String Default: True Constraints: Valid options are 'true' and 'false'. Example: --source-dest-check	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the name of the network interface that was reset.

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example resets network interface attributes for the specified network interface.

```
PROMPT> ec2-reset-network-interface-attribute eni-b35da6da --source-dest-check
sourceDestCheck eni-b35da6da    RESET
```

Related Operations

- ec2-create-network-interface (p. 89)
- ec2-delete-network-interface (p. 146)
- ec2-describe-network-interfaces (p. 248)
- ec2-describe-network-interface-attribute (p. 254)
- ec2-attach-network-interface (p. 28)
- ec2-detach-network-interface (p. 337)
- ec2-modify-network-interface-attribute (p. 387)

ec2-reset-snapshot-attribute

Description

Resets permission settings for the specified snapshot.

The short version of this command is **ec2rsnapatt**.

Syntax

```
ec2-reset-snapshot-attribute snapshot_id -c
```

Options

Name	Description	Required
`--snapshot` *snapshot*	The ID of the snapshot. Type: String Default: None Example: snap-78a54011	Yes
`-c, --create-volume-permission`	Resets the create volume permissions of the snapshot. Type: String Default: None Example: -c	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- createVolumePermission identifier
- Snapshot ID
- Action identifier ("RESET")

Amazon EC2 command line tools display errors on stderr.

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.

```
PROMPT> ec2-reset-snapshot-attribute snap-7ddb6e14
createVolumePermission snap-7ddb6e14 RESET
```

Related Operations

- ec2-modify-snapshot-attribute (p. 391)
- ec2-describe-snapshot-attribute (p. 279)
- ec2-describe-snapshots (p. 282)
- ec2-create-snapshot (p. 101)

ec2-resume-import

Description

Resumes the upload of a disk image associated with an import instance or import volume task ID. Amazon EC2 supports import of VMDK, RAW, and VHD disk images.

If the upload task stops without completing, use this command to resume this upload. The upload task will resume from where it left off. For more information, go to Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2 in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2rim**.

Syntax

```
ec2-resume-import -t task_id -o owner -w secret_key [-x days] [--user-threads
threads] [--part-size partsize] [--dry-run] [--dont-verify-format]
disk_image_filename
```

Options

Name	Description	Required
disk_image_filename	The local file name of the disk image that you want to upload. Type: String Default: None Example: WinSvr8-32-disk1.vmdk	Yes
`-t, --task` *task_id*	The conversion task ID for the upload. Type: String Default: None Example: -t import-i-ffvko9js	Yes
`-o, --owner-akid` *access_key_id*	Access key ID of the bucket owner. Type: String Default: None Example: AKIAIOSFODNN7EXAMPLE	Yes
`-w, --owner-sak` *secret_access_key*	Secret access key of the bucket owner. Type: String Default: None Example: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY	Yes
`-x, --expires` *days*	Validity period for the signed Amazon S3 URLS that allow EC2 to access your file. Type: String Default: 30 days Example: -x 10	No

Name	Description	Required
`--user-threads` *threads*	Maximum number of threads to concurrently upload the file with. Type: String Default: 20 Example: --user-threads 15	No
`--part-size` *partsize*	Size of each individual file part (in MB) that will be uploaded. The file will be split into multiple parts at most as large as the *partsize* parameter. Type: String Default: 8 Example: --part-size 3	No
`--dry-run`	Does not upload the file, only validates that the disk image matches a known type. Type: None Default: None Example: --dry-run	No
`--dont-verify-format`	Does not verify the file format. We don't recommend this option because it can result in a failed conversion. Type: None Default: None Example: --dont-verify-format	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`

Option	Description
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the following information:

- Disk image size and format
- Converted volume size
- EBS volume size
- Percent of the upload completed

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example uploads the corresponding disk image of the Windows Server 2008 (32-bit) VM you want to migrate.

```
PROMPT>ec2-resume-import ./WinSvr8-32-disk1.vmdk -t import-i-ffvko9js -o AKI
AIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
```

Related Operations

- ec2-delete-disk-image (p. 130)
- ec2-import-instance (p. 361)
- ec2-import-volume (p. 370)
- ec2-describe-conversion-tasks (p. 189)
- ec2-cancel-conversion-task (p. 50)

ec2-revoke

Description

This command applies to both EC2 security groups and VPC security groups. For information about VPC security groups and how they differ from EC2 security groups, go to the Security Groups in the *Amazon Virtual Private Cloud User Guide*.

This command removes a *rule* from a security group. The rule can be for ingress traffic, or for egress traffic (only if this is a VPC security group).

The values that you specify in the revoke request (e.g., ports, etc.) must match the existing rule's values in order for the rule to be removed.

Each rule consists of the protocol (e.g., TCP), plus either a CIDR range, or a source group (for ingress rules) or destination group (for egress rules). For TCP and UDP, you must also specify the destination port or port ranges. You can specify -1 to mean all ports (i.e., port range 0-65535). For ICMP, you must also specify the ICMP type and code. You can use -1 for the type or code to mean all types or all codes.

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

The short version of this command is **ec2revoke**.

Syntax

```
ec2-revoke group [--egress] [-P protocol] (-p port_range | -t icmp_type_code)
[-u source_or_dest_group_owner ...] [-o source_or_dest_group ...] [-s
source_or_dest_cidr ...]
```

Options

Name	Description	Required
group	For EC2 groups: Name or ID of the security group to modify. For VPC groups: ID of the security group to modify (e.g., sg-1a2b3c4d). The group must belong to your AWS account. Type: String Default: None Example: websrv	Yes
`--egress`	Optional flag applicable only to VPC security groups. The flag designates the rule is an egress rule (i.e., controls traffic leaving the VPC security group). Default: If this is not specified, the rule applies to ingress traffic for the specified security group	No

Name	Description	Required
`-P, --protocol` *protocol*	IP protocol name or number to revoke (go to Protocol Numbers). EC2 security groups can have rules only for TCP, UDP, and ICMP, whereas VPC security groups can have rules assigned to any protocol number. When you call `ec2-describe-group`, the protocol value returned is the number. Exception: For TCP, UDP, and ICMP, the value returned is the name (e.g., `tcp`, `udp`, or `icmp`). Type: String Valid Values for EC2 security groups: `tcp` | `udp` | `icmp` or the corresponding protocol number (`6` | `17` | `1`). Default for EC2 groups: Defaults to TCP if source CIDR is specified (or implied by default), or all three protocols (TCP, UDP, and ICMP) if source group is specified (to ensure backwards compatibility). Valid Values for VPC groups: `tcp` | `udp` | `icmp` or any protocol number (go to Protocol Numbers). Use `all` to specify all protocols. Condition: Required for VPC security groups. Example: -P udp	Conditional
`-p` *port_range*	For TCP or UDP, this specifies the range of ports to revoke. Type: String Default: None Valid Values: A single integer or a range (min-max). You can specify -1 to mean all ports (i.e., port range 0-65535). Condition: Required if specifying `tcp` or `udp` (or the equivalent number) for the protocol. Example: -p 80-84	Conditional
`-t` *icmp_type_code*	For ICMP, this specifies the ICMP type and code to revoke. This must be specified in the format type:code where both are integers. You can use -1 for the type or code to mean all types or all codes. Type: String Default: None Condition: Required if specifying `icmp` (or the equivalent number) for the protocol. Example: -t -1:-1	Conditional

Name	Description	Required
`-u, source_or_dest_group_owner`	AWS account ID that owns the source security group (for ingress rules) or destination security group (for egress rules). If the group is in your own account, set this to your own AWS account ID. Cannot be used when specifying a CIDR IP address. Type: String Default: None Condition: Required when revoking a rule that gives access to one or more source security groups. Example: -u 111122223333	Conditional
`-o source_or_dest_group`	The source security group (for ingress rules), or destination security group (for egress rules). When revoking a rule for a VPC security group, you must specify the group's ID (e.g., sg-9d4e5f6g) instead of its name. Cannot be used when specifying a CIDR IP address with the -s option. Type: String Default: None Condition: Required if revoking access to one or more source or destination security groups. Example: -o headoffice	Conditional
`-s, --cidr source_or_dest_cidr`	CIDR range. Cannot be used when specifying a source or destination security group with the -o option. Type: String Default: 0.0.0.0/0 Constraints: Valid CIDR IP address range. Condition: Required if revoking access to one or more IP address ranges. Example: -s 205.192.8.45/24	Conditional

Common Options

Option	Description
`--region REGION`	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url URL`	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("GROUP", "PERMISSION")
- Group name; currently, this will report an empty string
- Type of rule; currently, only ALLOW rules are supported
- Protocol to allow
- Start of port range
- End of port range
- FROM
- Source

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

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

```
PROMPT> ec2-revoke websrv -P tcp -p 80 -s 205.192.0.0/16
GROUP websrv
PERMISSION websrv ALLOWS tcp 80 80 FROM CIDR 205.192.0.0/16
```

Related Operations

- ec2-create-group (p. 70)
- ec2-describe-group (p. 203)
- ec2-authorize (p. 37)
- ec2-delete-group (p. 133)

ec2-run-instances

Description

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

If Amazon EC2 cannot launch the minimum number of 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 allocates the remaining available instances using round robin.

Note

Every instance is launched in a security group (which you create using the `ec2-create-group` command). If you don't specify a security group at launch time, the "default" security group is used.

For Linux instances, you can provide an optional key pair ID in the launch request (created using the `ec2-create-keypair` or `ec2-import-keypair` command). The instances will have access to the 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.

The public key material is made available to the Linux 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.

Important

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

You can provide optional user data in the launch request. All instances that collectively comprise the launch request have access to this data. For more information, go to Instance Metadata in the *Amazon Elastic Compute Cloud User Guide*.

Note

If any of the AMIs have a product code attached for which the user has not subscribed, the `ec2-run-instances` command will fail.

The short version of this command is **ec2run**.

Syntax

```
ec2-run-instances ami_id [-n instance_count] [-g group [-g group ...]] [-k
keypair] [-d user_data |-f user_data_file] [--addressing addressing_type]
[--instance-type instance_type] [--availability-zone zone] [--kernel kernel_id]
[--ramdisk ramdisk_id] [--block-device-mapping block_device_mapping] [--monitor]
[--disable-api-termination] [--instance-initiated-shutdown-behavior behavior]
[--placement-group  placement-group] [--tenancy  tenancy] [--subnet subnet_id]
```

[--private-ip-address ***ip_address*****] [--client-token** ***token*****] [--network-interface** ***networkinterface*****] [-p, --iam-profile** ***arn*****|*****name*****]**

Options

Name	Description	Required
ami_id	Unique ID of a machine image, returned by a call to **ec2-describe-images**. Type: String Default: None Example: ami-15a4417c	Yes
`-n , --instance-count` *min[-max]*	The number of instances to launch. If Amazon EC2 cannot launch the specified number of instances, no instances will launch. If this is specified as a range (min-max), Amazon EC2 will try to launch the maximum number, but no fewer than the minimum number. Type: String Default: 1 Constraints: Between 1 and the maximum number allowed for your account (default: 20). Example: -n 5-10	No
`-g, --group` *group*	Name of the security group. Type: String Default: None Example: -g websrv	No
`-k, --key` *keypair*	The name of the key pair. Type: String Default: None Example: -k websvr-keypair	No
`-d, --user-data` *user_data*	Specifies Base64-encoded MIME user data to be made available to the instance(s) in this reservation. Type: String Default: None Example: -d s3-bucket:my-logs	No
`-f, --user-data-file` *filename*	Specifies the filename of the user data to be made available to the instance(s) in this reservation. Type: String Default: None Example: -f user-data.txt	No
`--addressing`	Deprecated.	

Name	Description	Required
`-t`, `--instance-type` *instance_type*	Specifies the instance type. Type: String Valid Values: `m1.small` | `m1.medium` | `m1.large` | `m1.xlarge` | `c1.medium` | `c1.xlarge` | `m2.xlarge` | `m2.2xlarge` | `m2.4xlarge` | `cc1.4xlarge` | `cg1.4xlarge` | `cc2.8xlarge` | `t1.micro` Default: m1.small Example: -t m1.large	No
`-z`, `--availability-zone` *zone*	The Availability Zone in which to run the instance. Type: String Default: None Example: --availability-zone us-east-1a	No
`--kernel` *kernel*	The ID of the kernel with which to launch the instance. Type: String Default: None Example: --kernel aki-ba3adfd3	No
`--ramdisk` *ramdisk*	The ID of the RAM disk to select. 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, refer to the Resource Center and search for the kernel ID. Type: String Default: None Example: --ramdisk ari-abcdef01	No

Name	Description	Required
`-b, --block-device-mapping` *`mapping`*	Defines a block device mapping for the instance. This argument is passed in the form of **`<devicename>=<blockdevice>`**. The *`devicename`* is the device name of the physical device on the instance to map. The *`blockdevice`* can be one of the following values: • *`none`* - specifies that an existing mapping of the device from the AMI used to launch the instance should be suppressed. For example: `/dev/sdc=none` • *`ephemeral[0..3]`* - specifies an instance store volume to be mapped to the device. Example: `/dev/sdc=ephemeral0` • *`[snapshot-id]:[size]:[delete-on-termination (true|false)]`* - specifies an EBS volume to be mapped to the device. To create a volume from a snapshot, specify the snapshot ID. To create an empty EBS volume, omit the snapshot ID and pass in a volume size instead; for example: `/dev/sdb=:20`. You can also specify whether the EBS volume should be deleted on termination of the instance; this value is true by default. You can specify multiple *`blockdevicemapping`* arguments in one call. For more detailed information about block device mapping, see Block Device Mapping in the *Amazon Elastic Compute Cloud User Guide*. Type: String Default: None Example: -b "/dev/sdb=snap-92d333fb::false" **Note** On Windows, the *`mapping`* argument must be enclosed in double quotes, as shown in the example.	No
`-m, --monitor`	Enables monitoring for the instance. Type: Boolean Default: Disabled Example: --monitor	No

Name	Description	Required
`--disable-api-termination`	Disables the ability to terminate the instance using the EC2 API (i.e., "locks" the instance). To re-enable this ability, you must change the `disableApiTermination` attribute's value to `false` using `ec2-modify-instance-attribute`. Type: String Default: False (you can terminate the instance using the API) Example: --disable-api-termination	No
`--instance-initiated-shutdown-behavior` *`behavior`*	If an instance shutdown is initiated, this determines whether the instance stops or terminates. Type: String Valid Values: `stop` | `terminate` Default: `stop` Example: --instance-initiated-shutdown-behavior stop	No
`--placement-group` *`placement-group`*	Name of the placement group. Type: String Valid Values: `cluster` Default: None Example: --placement-group XYZ-cluster	No
`--tenancy` *`tenancy`*	The tenancy of the instance you want to launch. An instance with a tenancy of `dedicated` runs on single-tenant hardware and can only be launched into a VPC. Type: String Valid Values: `default` | `dedicated` Default: default Example: --tenancy dedicated	No
`-s`, `--subnet` *`subnet_id`*	If you're using Amazon Virtual Private Cloud, this specifies the ID of the subnet you want to launch the instance into. Type: String Default: None Example: -s subnet-f3e6ab83	No
`--private-ip-address` *`ip_address`*	If you're using Amazon Virtual Private Cloud, you can optionally use this parameter to assign the instance a specific available IP address from the subnet. Type: String Default: Amazon VPC selects an IP address from the subnet for the instance Example: --private-ip-address 10.0.0.25	No

Name	Description	Required
`--client-token` *token*	Unique, case-sensitive identifier you provide to ensure idempotency of the request. For more information, go to How to Ensure Idempotency in the *Amazon Elastic Compute Cloud User Guide*. Type: String Default: None Constraints: Maximum 64 ASCII characters Example: --client-token 550e8400-e29b-41d4-a716-446655440000	No
`-a,` `--network-interface` *NETWORKINTERFACE*	Specifies the network attachment for the launched instance. The format of the NETWORKINTERFACE definition is as follows: For an existing NETWORKINTERFACE - *eni*:*dev index* For a new NETWORKINTERFACE - *dev index*:*subnet*[:*description*[:*priv IP*[:*SGs*[:*DOT*]]]] where SGs is a comma separated list of security group IDs and DOT is either true or false, denoting whether to delete the interface on terminate. Type: String Default: None Examples: • Launch an instance with a specific interface for index 0 **`ec2run ami-0644f007 -a eni-d2b24dbb:0`** • Launch an instance and specify interfaces for both index 0 and index 1 **`ec2run ami-0644f007 -a eni-d2b24dbb:0 -a eni-12345678:1`** • Launch an instance and autocreate an interface for index 0 with details and a specific interface for index 1 **`ec2-run-instances ami-31814f58 -a :0:subnet-15ca247d:"My ENI" –a eni-12345678:1`** • Launch an instance with a specific interface for index 0 and autocreate an interface for index 1 with specific values **`ec2-run-instances ami-31814f58 -a eni-12345678:0 -a :1:subnet-15ca247d:"My ENI":10.0.0.10:sg-123456,sg-654321:false`**	No

Name	Description	Required
`-p, --iam-profile` *arn|name*	Specifies the IAM instance profile to associate with the launched instance(s). IAM instance profiles enable you to manage permissions for applications running on EC2. This is either the Amazon Resource Name (ARN) of the instance profile (e.g., arn:aws:iam::111111111111:instance-profile/s3access) or the name of the role (e.g., s3access). Type: String Default: None Example: arn:aws:iam::111111111111:instance-profile/s3access	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.

Option	Description
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Output type identifier ("INSTANCE")
- Instance ID which uniquely identifies each running instance
- AMI ID of the image on which the instance(s) are based
- Instance state. This is usually pending, which indicates that the instance(s) are preparing to launch
- Key pair name (if a key pair was associated with the instance at launch)
- AMI launch index
- Product code (if the AMI has a product code)
- Instance type
- Instance launch time
- Availability Zone
- Kernel ID
- RAM disk ID
- Monitoring status
- Root device type (ebs or instance-store)
- Placement group the cluster instance is in
- The tenancy of the instance launched (if it is running within a VPC).
- Virtualization type (paravirtual or hvm)
- Hypervisor type (xen or ovm)

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example launches three instances of the `ami-b232d0db` AMI.

```
PROMPT> ec2-run-instances ami-b232d0db -n 3 --availability-zone us-east-1a
```

```
RESERVATION r-385c5950 012301230123 default
INSTANCE  i-5bca5a30  ami-b232d0db  pending  0  m1.small 2010-04-07T12:25:47+0000
  us-east-1a  aki-94c527fd  ari-96c527ff  monitoring-disabled  ebs  paravirtual
  xen
INSTANCE  i-59ca5a32  ami-b232d0db  pending  1  m1.small 2010-04-07T12:25:47+0000
  us-east-1a  aki-94c527fd  ari-96c527ff  monitoring-disabled  ebs  paravirtual
  xen
INSTANCE  i-5fca5a34  ami-b232d0db  pending  2  m1.small 2010-04-07T12:25:47+0000
  us-east-1a  aki-94c527fd  ari-96c527ff  monitoring-disabled  ebs  paravirtual
  xen
```

Example Request

This example launches an Amazon EBS-based Fedora image (`ami-84db39ed`) and provides a block device mapping that mounts a public snapshot containing the 2000 US Census data.

```
PROMPT> ec2-run-instances ami-84db39ed -n 1 --b "/dev/sdb=snap-92d333fb::false"

RESERVATION     r-5488ce3c      054794666394    default
INSTANCE   i-770af21c  ami-84db39ed   pending   0   m1.small    2010-02-
25T00:08:00+0000   us-east-1c  aki-94c527fd    ari-96c527ff      monitoring-
disabled   ebs  paravirtual  xen
```

Related Operations

- ec2-describe-instances (p. 222)
- ec2-stop-instances (p. 470)
- ec2-start-instances (p. 467)
- ec2-terminate-instances (p. 473)
- ec2-authorize (p. 37)
- ec2-revoke (p. 453)
- ec2-describe-group (p. 203)
- ec2-create-group (p. 70)
- ec2-create-keypair (p. 79)

ec2-start-instances

Description

Starts an instance that uses an Amazon EBS volume as its root device.

Instances that use Amazon EBS volumes as their root devices can be quickly stopped and started. When an instance is stopped, the compute resources are released and you are not billed for hourly instance usage. However, your root partition Amazon EBS volume remains, continues to persist your data, and you are charged for Amazon EBS volume usage. You can restart your instance at any time. Each time you transition an instance from stopped to started, we charge a full instance hour, even if transitions happen multiple times within a single hour.

Note

Before stopping an instance, make sure it is in a state from which it can be restarted. Stopping an instance does not preserve data stored in RAM.

Performing this operation on an instance that uses an instance store as its root device returns an error.

You cannot start or stop Spot Instances.

For more information, go to Using Amazon EBS-Backed AMIs and Instances.

The short version of this command is **ec2start**.

Syntax

```
ec2-start-instances instance_id [instance_id...]
```

Options

Name	Description	Required
instance_id	The instance ID. Type: String Default: None Example: i-43a4412a	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- INSTANCE identifier
- Instance ID
- Previous state
- Current state

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example starts the i-10a64379 instance.

```
PROMPT> ec2-start-instances i-10a64379
INSTANCE i-10a64379 stopped pending
```

Related Operations

- ec2-stop-instances (p. 470)
- ec2-run-instances (p. 458)
- ec2-describe-instances (p. 222)
- ec2-terminate-instances (p. 473)

ec2-stop-instances

Description

Stops an instance that uses an Amazon EBS volume as its root device. Each time you transition an instance from stopped to started, we charge a full instance hour, even if transitions happen multiple times within a single hour.

Important

Although Spot Instances can use Amazon EBS-backed AMIs, they don't support Stop/Start. In other words, you can't stop and start Spot Instances launched from an AMI with an Amazon EBS root device.

Instances that use Amazon EBS volumes as their root devices can be quickly stopped and started. When an instance is stopped, the compute resources are released and you are not billed for hourly instance usage. However, your root partition Amazon EBS volume remains, continues to persist your data, and you are charged for Amazon EBS volume usage. You can restart your instance at any time.

Note

Before stopping an instance, make sure it is in a state from which it can be restarted. Stopping an instance does not preserve data stored in RAM.

Performing this operation on an instance that uses an instance store as its root device returns an error.

You can stop, start, and terminate EBS-backed instances. You can only terminate S3-backed instances. What happens to an instance differs if you stop it or terminate it. For example, when you stop an instance, the root device and any other devices attached to the instance persist. When you terminate an instance, the root device and any other devices attached during the instance launch are automatically deleted. For more information about the differences between stopping and terminating instances, go to the "Stop/Start" and "Instance Termination" in Basics of Amazon EBS-Backed AMIS and Instances in the Amazon EC2 User Guide.

The short version of this command is **ec2stop**.

Syntax

```
ec2-stop-instances instance_id [instance_id...] [--force]
```

Options

Name	Description	Required
instance_id	The ID of the instance you want to stop. Type: String Default: None Example: i-43a4412a	Yes

Name	Description	Required
`-f, --force`	Forces the instance to stop. The instance will not have an opportunity to flush file system caches or file system metadata. If you use this option, you must perform file system check and repair procedures. This option is not recommended for Windows instances. Type: Boolean Default: None Example: None	No

Common Options

Option	Description
`--region` *`REGION`*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *`URL`*	*`URL`* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.

Option	Description
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- INSTANCE identifier
- Instance ID
- Previous state
- Current state

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example stops the i-10a64379 instance.

```
PROMPT> ec2-stop-instances i-10a64379
INSTANCE i-10a64379 running stopping
```

Related Operations

- ec2-start-instances (p. 467)
- ec2-run-instances (p. 458)
- ec2-describe-instances (p. 222)
- ec2-terminate-instances (p. 473)

ec2-terminate-instances

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).

Note

By default, Amazon EC2 deletes all Amazon EBS volumes that were attached when the instance launched. Amazon EBS volumes attached after instance launch continue running.

You can stop, start, and terminate EBS-backed instances. You can only terminate S3-backed instances. What happens to an instance differs if you stop it or terminate it. For example, when you stop an instance, the root device and any other devices attached to the instance persist. When you terminate an instance, the root device and any other devices attached during the instance launch are automatically deleted. For more information about the differences between stopping and terminating instances, go to the "Stop/Start" and "Instance Termination" in Basics of Amazon EBS-Backed AMIS and Instances in the Amazon EC2 User Guide.

The short version of this command is **ec2kill**.

Syntax

```
ec2-terminate-instances instance_id [instance_id ...]
```

Options

Name	Description	Required
instance_id	IDs of instances to terminate. Type: String Default: None Example: i-43a4412a	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`

Option	Description
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- INSTANCE identifier
- The instance ID of the instance being terminated
- The state of the instance prior to being terminated
- The new state of the instance

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

This example terminates the `i-3ea74257` instance.

```
PROMPT> ec2-terminate-instances i-3ea74257
INSTANCE i-3ea74257 running shutting-down
```

Related Operations

- ec2-describe-instances (p. 222)
- ec2-run-instances (p. 458)

ec2-unmonitor-instances

Description

Disables monitoring for a running instance. For more information, go to Monitoring Your Instances and Volumes in the *Amazon Elastic Compute Cloud User Guide*.

The short version of this command is **ec2umin**.

Syntax

```
ec2-unmonitor-instances instance_id [instance_id...]
```

Options

Name	Description	Required
instance_id	Instance ID. Type: String Default: None Example: i-43a4412a	Yes

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`
`-K, --private-key` *EC2-PRIVATE-KEY*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *EC2-CERT*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *TIMEOUT*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30

Option	Description
`--request-timeout` *TIMEOUT*	Specifies a request timeout (in seconds). Example: --request-timeout 45
-v, --verbose	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns a table that contains the following information:

- Instance ID
- Monitoring state

Amazon EC2 command line tools display errors on stderr.

Examples

Example Request

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

```
PROMPT> ec2-unmonitor-instances  i-43a4412a i-23a3397d
i-43a4412a monitoring-disabling
i-23a3397d monitoring-disabling
```

Related Operations

- ec2-monitor-instances (p. 397)
- ec2-run-instances (p. 458)

ec2-upload-disk-image

Description

This command, which uploads the disk image associated with an import instance or an import volume task ID, is deprecated. Instead, use `ec2-import-instance` and `ec2-import-volume` commands to create the import task and upload the image to Amazon EC2. `ec2-import-instance` and `ec2-import-volume` commands that are part of Amazon EC2 API command line tools downloaded after 09-15-2011 are enhanced to perform the task previously performed by `ec2-upload-disk-image`. Amazon EC2 supports import of VMDK, RAW, and VHD disk images. For more information, go to Using the Command Line Tools to Import Your Virtual Machine to Amazon EC2 in the *Amazon Elastic Compute Cloud User Guide*.

If the upload task doesn't complete, use `ec2-resume-import` to resume the import from where it was interrupted.

The short version of this command is **ec2udi**.

Syntax

```
ec2-upload-disk-image -t task_id -o owner -w secret_key [-x days] [--user-threads
threads] [--part-size partsize] [--dry-run] [--dont-verify-format] disk_image
```

Options

Name	Description	Required
disk_image	The local file name of the disk image that you want to upload. Type: String Default: None Example: WinSvr8-32-disk1.vmdk	Yes
`-t, --task` *task_id*	The conversion task ID for the upload. Type: String Default: None Example: -t import-i-ffvko9js	Yes
`-o, --owner-akid` *access_key_id*	Access key ID of the bucket owner. Type: String Default: None Example: AKIAIOSFODNN7EXAMPLE	Yes
`-w, --owner-sak` *secret_access_key*	Secret access key of the bucket owner. Type: String Default: None Example: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY	Yes

Name	Description	Required
`-x, --expires` *days*	Validity period for the signed Amazon S3 URLS that allow EC2 to access your file. Type: String Default: 30 days Example: -x 10	No
`--user-threads` *threads*	Maximum number of threads to concurrently upload the file with. Type: String Default: 20 Example: --user-threads 15	No
`--part-size` *partsize*	Size of each individual file part (in MB) that will be uploaded. The file will be split into multiple parts at most as large as the *partsize* parameter. Type: String Default: 8 Example: --part-size 3	No
`--dry-run`	Does not upload the file, only validates that the disk image matches a known type. Type: None Default: None Example: --dry-run	No
`--dont-verify-format`	Does not verify the file format. We don't recommend this option because it can result in a failed conversion. Type: None Default: None Example: --dont-verify-format	No

Common Options

Option	Description
`--region` *REGION*	Overrides the Region specified in the `EC2_URL` environment variable and the URL specified by the `-U` option. Default: The `EC2_URL` environment variable, or `us-east-1` if the environment variable is not set. Example: `--region eu-west-1`
`-U, --url` *URL*	*URL* is the uniform resource locator of the Amazon EC2 web service entry point. Default: The `EC2_URL` environment variable, or https://ec2.amazonaws.com if the environment variable is not set. Example: `-U https://ec2.amazonaws.com`

Option	Description
`-K, --private-key` *`EC2-PRIVATE-KEY`*	The private key to use when constructing requests to Amazon EC2. Default: The value of the `EC2_PRIVATE_KEY` environment variable. Example: `-K pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`-C, --cert` *`EC2-CERT`*	The X.509 certificate to use when constructing requests to Amazon EC2. Default: The value of the `EC2_CERT` environment variable. Example: `-C cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`
`--connection-timeout` *`TIMEOUT`*	Specifies a connection timeout (in seconds). Example: --connection-timeout 30
`--request-timeout` *`TIMEOUT`*	Specifies a request timeout (in seconds). Example: --request-timeout 45
`-v, --verbose`	Displays verbose output by showing the SOAP request and response on the command line. This is particularly useful if you are building tools to talk directly to our SOAP API.
`-H, --headers`	Displays column headers in the output.
`--show-empty-fields`	Shows empty columns as `(nil)`.
`--hide-tags`	Do not display tags for tagged resources.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.
`-?, --help, -h`	Displays Help.
`-`	If `-` is specified as an argument to one of the parameters, a list of arguments is read from standard input. This is useful for piping the output of one command into the input of another. Example: `ec2-describe-instances | grep stopped | cut -f 2 | ec2-start-instances -`

Output

The command returns the following information:

- Disk image size and format
- Converted volume size
- EBS volume size
- Percent of the upload completed

Amazon EC2 command line tools display errors on stderr.

Example

Example Request

This example uploads the corresponding disk image of the Windows Server 2008 (32-bit) VM you want to migrate.

```
PROMPT>ec2-upload-disk-image ./WinSvr8-32-disk1.vmdk -t import-i-ffvko9js -o
AKIAIOSFODNN7EXAMPLE -w wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
```

Related Operations

- ec2-delete-disk-image (p. 130)
- ec2-resume-import (p. 449)
- ec2-import-instance (p. 361)
- ec2-import-volume (p. 370)
- ec2-describe-conversion-tasks (p. 189)
- ec2-cancel-conversion-task (p. 50)

AMI Tools Reference

Topics

- Common Options for AMI Tools (p. 482)
- ec2-bundle-image (p. 483)
- ec2-bundle-vol (p. 486)
- ec2-delete-bundle (p. 490)
- ec2-download-bundle (p. 492)
- ec2-migrate-bundle (p. 494)
- ec2-migrate-manifest (p. 497)
- ec2-unbundle (p. 499)
- ec2-upload-bundle (p. 501)

Common Options for AMI Tools

Most AMI tools described in this section accept the set of optional parameters described in the following table.

Note

The AMI Tools are only designed for use with the AMIs backed by Amazon S3.

Option	Description
`--help, -h`	Display the help message.
`--version`	Displays the version and copyright notice.
`--manual`	Displays the manual entry.
`--batch`	Runs in batch mode, suppressing user interaction and confirmation.
`--debug`	Prints internal debugging information. This is useful to assist us when troubleshooting problems.

ec2-bundle-image

Description

Create a bundled AMI from an operating system image created in a loopback file. For more information, go to the Amazon Elastic Compute Cloud User Guide.

Note

Scripts that require a copy of the public key from the launch key pair must obtain the key from the instance's metadata (not the key file in the instance store) for instances bundled with the 2007-08-29 AMI tools and later. AMIs bundled before this release will continue to work normally.

Syntax

```
ec2-bundle-image -k private_key -c cert -u user_id -i image_path -r {i386 |
x86_64} [-d destination] [-p ami_prefix] [--ec2cert cert_path] [--kernel
kernel-id] [--ramdisk ramdisk_id] [--block-device-mapping block_device_mapping]
```

Options

Option	Description	Required
`-k, --privatekey` *private_key*	The path to the user's PEM-encoded RSA key file. Example: `-k pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-c, --cert` *cert*	The user's PEM encoded RSA public key certificate file. Example: `-c cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-u, --user` *user_id*	The user's AWS account ID without dashes. Do not use the Access Key ID. Example: `-u 111122223333`	Yes
`-i, --image` *image_path*	The path to the image to bundle. Example: `-i /var/spool/my-image/version-2/debian.img`	Yes
`-r, --arch` *architecture*	Image architecture. If you don't provide this on the command line, you'll be prompted to provide it when the bundling starts. Valid Values: `i386` | `x86_64` Example: `-r x86_64`	Yes
`-d, --destination` *destination*	The directory in which to create the bundle. Default: /tmp Example: `-d /var/run/my-bundle`	No

Option	Description	Required
`-p, --prefix` *ami_prefix*	The filename prefix for bundled AMI files. Default: The name of the image file. For example, if the image path is `/var/spool/my-image/version-2/debian.img`, then the default prefix is `debian.img`. Example: `-p my-image-is-special`	No
`--ec2cert` *cert_path*	The path to the Amazon EC2 X.509 public key certificate. Default: `/etc/ec2/amitools/cert-ec2.pem` (varies, depending on tools) Example: `--ec2cert /etc/ec2/amiutil/cert-ec2.pem`	No
`--kernel` *kernel_id*	The ID of the kernel to select. Default: `2.6.16-xenU` Example: `--kernel aki-ba3adfd3`	No
`--ramdisk` *ramdisk_id*	The ID of the RAM disk to select. 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. Example: `--ramdisk ari-badbad00`	No
`--block-device-mapping` *mappings*	Default block-device-mapping scheme with which to launch the AMI. This defines how block devices are exposed to an instance of this AMI if the instance type supports the specified device. The scheme is a comma-separated list of key=value pairs, where each key is a virtual name and each value is the desired device name. Virtual names include: • **ami** The root file system device, as seen by the instance • **root** The root file system device, as seen by the kernel • **swap** The swap device, as seen by the instance • **ephemeralN** The Nth ephemeral store Example: `--block-device-mapping ami=sda1,root=/dev/sda1,ephemeral0=sda2,swap=sda3` Example: `--block-device-mapping ami=0,root=/dev/dsk/c0d0s0,ephemeral0=1`	No

Output

Status messages describing the stages and status of the bundling process.

Example

This example creates a bundled AMI from an operating system image that was created in a loopback file.

```
$ ec2-bundle-image -k pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem -c cert-HKZYK
TAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem -u 111122223333 -i image.img -d bundled/ -p
fred -r x86_64
Please specify a value for arch [i386]:
Bundling image file...
Splitting bundled/fred.gz.crypt...
Created fred.part.00
Created fred.part.01
Created fred.part.02
Created fred.part.03
Created fred.part.04
Created fred.part.05
Created fred.part.06
Created fred.part.07
Created fred.part.08
Created fred.part.09
Created fred.part.10
Created fred.part.11
Created fred.part.12
Created fred.part.13
Created fred.part.14
Generating digests for each part...
Digests generated.
Creating bundle manifest...
ec2-bundle-image complete.
```

Related Topics

- ec2-bundle-vol (p. 486)
- ec2-unbundle (p. 499)
- ec2-upload-bundle (p. 501)
- ec2-download-bundle (p. 492)
- ec2-delete-bundle (p. 490)

ec2-bundle-vol

Description

Creates a bundled AMI by compressing, encrypting and signing a snapshot of the local machine's root file system.

To use `ec2-bundle-vol`, first you must install the AMI tools on the instance you are bundling, then run `ec2-bundle-vol` on that instance, not on a local system. For information about getting the AMI tools, go to Amazon EC2 AMI Tools.

Note

Scripts that require a copy of the public key from the launch key pair must obtain the key from the instance's metadata (not the key file in the instance store) for instances bundled with the 2007-08-29 AMI tools and later. AMIs bundled before this release will continue to work normally.

On a running instance, Amazon EC2 attempts to inherit product codes, kernel settings, RAM disk settings, and block device mappings with which the instance launched.

Syntax

```
ec2-bundle-vol -k private_key -u user_id -c cert -r architecture [-s size] [-d
destination] [-e exclude_directory_1,exclude_directory_1,...] [-p ami_prefix]
[-v volume] [--ec2cert cert_path] [--fstab fstab_path] [--generate-fstab]
[--kernel kernel-id] [--ramdisk ramdisk_id] [--block-device-mapping
block_device_mapping] [--[no-]inherit] [--productcodes product_code]
```

Options

Option	Description	Required
`-k, --privatekey` *`private_key`*	The path to the user's PEM-encoded RSA key file. Example: `-k pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-u, --user` *`user_id`*	The user's AWS account ID without dashes. Do not use the Access Key ID. Example: `-u 111122223333`	Yes
`-c, --cert` *`cert`*	The user's PEM encoded RSA public key certificate file. Example: `-c cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-r, --arch` *`architecture`*	Image architecture. If you don't provide this on the command line, you'll be prompted to provide it when the bundling starts. Valid Values: `i386` | `x86_64` Example: `-r x86_64`	Yes

Option	Description	Required
`-s, --size` *size*	The size, in MB (1024 * 1024 bytes), of the image file to create. The maximum size is 10240 MB. Default: 10240 Example: `-s 2048`	No
`-d, --destination` *destination*	The directory in which to create the bundle. Default: `/tmp` Example: `-d /var/run/my-bundle`	No
`-e, --exclude` *directory_1,directory_2,...*	A list of absolute directory paths and files to exclude from the bundle operation. This parameter overrides the `--all` option. When exclude is specified, the directories and subdirectories listed with the parameter will not be bundled with the volume. Example: Assuming the mount point of the volume is `-v /foo`, and you want to exclude directories /foo/bar and /foo/baz, specify `-e /bar,/baz`.	No
`-i, --include` *file_1,file_2,...*	A list of files to include in the bundle operation. This option overrides the exclusion of files that are by default filtered out because they might contain sensitive information. Use this option to explicitly include a file that might contain sensitive data i.e., '*.sw', '*.swo', '*.swp', '*.pem', '*.priv', '*.gpg', '*.jks', '*/.ssh/authorized_keys', '*/.bash_history'. The files listed with the parameter will be bundled with the volume. Example: Assuming the mount point of the volume is `-v /mnt/myvol/` and you want to include file /mnt/myvol/foo/bar.pem, specify `-i /foo/bar.pem`.	No
`-p, --prefix` *ami_prefix*	The filename prefix for bundled AMI files. Default: `image` Example: `-p my-image-is-special`	No
`-v, --volume` *volume*	The absolute path to the mounted volume from which to create the bundle. Default: The root directory (/) Example: `-v /mnt/my-customized-ami`	No
`-a, --all`	Bundle all directories, including those on remotely mounted filesystems. Example: `-a`	No
`--ec2cert` *cert_path*	The path to the Amazon EC2 X.509 public key certificate. Default: `/etc/ec2/amitools/cert-ec2.pem` (varies, depending on tools) Example: `--ec2cert /etc/ec2/amiutil/cert-ec2.pem`	No

Option	Description	Required
`--fstab` *`fstab_path`*	The path to the fstab to bundle into the image. If this is not specified, Amazon EC2 bundles /etc/fstab. Example: `--fstab /etc/fstab`	No
`--generate-fstab`	Causes Amazon EC2 to bundle the volume using an Amazon EC2-provided fstab. Example: `--generate-fstab`	No
`--kernel` *`kernel_id`*	The ID of the kernel to select. Example: `--kernel aki-ba3adfd3`	No
`--ramdisk` *`ramdisk_id`*	The ID of the RAM disk to select. Some kernels require additional drivers at launch. Check the kernel requirements for information on whether you need to specify a RAM disk. To find the kernel requirements, go to the Resource Center and search for the kernel ID. Example: `--ramdisk ari-badbad00`	No
`--block-device-mapping` *`mappings`*	Default block-device-mapping scheme with which to launch the AMI. This defines how block devices are exposed to an instance of this AMI if the instance type supports the specified device. The scheme is a comma-separated list of key=value pairs, where each key is a virtual name and each value is the desired device name. Virtual names include: • **ami** The root file system device, as seen by the instance • **root** The root file system device, as seen by the kernel • **swap** The swap device, as seen by the instance • **ephemeralN** The Nth ephemeral store Example: `--block-device-mapping ami=sda1,root=/dev/sda1,ephemeral0=sda2,swap=sda3` Example: `--block-device-mapping ami=0,root=/dev/dsk/c0d0s0,ephemeral0=1`	No
`--[no-]inherit`	Whether the image should inherit the instance's metadata (the default is to inherit). Bundling will fail if you enable inherit but the instance metadata is not accessible. Example: `--inherit`	No
`--productcodes` *`product_code`*	Product code to attach to the image at registration time. Example: `--productcodes 1234abcd`	No

Output

Status messages describing the stages and status of the bundling.

Example

This example creates a bundled AMI by compressing, encrypting and signing a snapshot of the local machine's root file system.

```
$ ec2-bundle-vol -d /mnt -k pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem -c cert-
HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem -u 111122223333 -r x86_64
  Copying / into the image file /mnt/image...
  Excluding:
       sys
       dev/shm
       proc
       dev/pts
       proc/sys/fs/binfmt_misc
       dev
       media
       mnt
       proc
       sys
       tmp/image
       mnt/img-mnt
  1+0 records in
  1+0 records out
  mke2fs 1.38 (30-Jun-2005)
  warning: 256 blocks unused.

  Splitting /mnt/image.gz.crypt...
  Created image.part.00
  Created image.part.01
  Created image.part.02
  Created image.part.03
  ...
  Created image.part.22
  Created image.part.23
  Generating digests for each part...
  Digests generated.
  Creating bundle manifest...
  Bundle Volume complete.
```

Related Topics

- ec2-bundle-image (p. 483)
- ec2-unbundle (p. 499)
- ec2-upload-bundle (p. 501)
- ec2-download-bundle (p. 492)
- ec2-delete-bundle (p. 490)

ec2-delete-bundle

Description

Deletes the specified bundle from Amazon S3 storage.

Syntax

```
ec2-delete-bundle -b s3_bucket -a access_key_id -s secret_key [-m manifest_path]
[-p ami_prefix] [--url url] [--retry] [-y] [--clear]
```

Options

Option	Description	Required
`-b, --bucket` *s3_bucket*	The name of the Amazon S3 bucket containing the bundled AMI, followed by an optional '/'-delimited path prefix Example: `-b myawsbucket/ami-001`	Yes
`-a, --access-key` *access_key_id*	The AWS access key ID. Example: `-a AKIAIOSFODNN7EXAMPLE`	Yes
`-s, --secret-key` *secret_key*	The AWS secret access key. Example: `-s wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY`	Yes
`-m, --manifest` *manifest_path*	The path to the unencrypted manifest file. Example: `-m /var/spool/my-first-bundle/image.manifest.xml` Condition: You must specify `--prefix` or `--manifest`.	Conditional
`-p, --prefix` *ami_prefix*	The bundled AMI filename prefix. Provide the entire prefix. For example, if the prefix is image.img, use `-p image.img` and not `-p image`. Example: `-p image.img` Condition: You must specify `--prefix` or `--manifest`.	Conditional
`--url` *url*	The Amazon S3 service URL. Default: `https://s3.amazonaws.com` Example: `--url https://s3.amazonaws.ie`	No
`--retry`	Automatically retries on all Amazon S3 errors, up to five times per operation. Example: `--retry`	No
`-y, --yes`	Automatically assumes the answer to all prompts is 'yes'. Example: `-y`	No

Option	Description	Required
`--clear`	Deletes the specified bundle from the Amazon S3 bucket and deletes the bucket, if empty. Example: `--clear`	No

Output

Amazon EC2 displays status messages indicating the stages and status of the delete process.

Example

This example deletes a bundle from Amazon S3.

```
$ ec2-delete-bundle -b myawsbucket -a AKIAIOSFODNN7EXAMPLE -s wJalrXUtn
FEMI/K7MDENG/bPxRfiCYEXAMPLEKEY -p fred
Deleting files:
myawsbucket/fred.manifest.xml
myawsbucket/fred.part.00
myawsbucket/fred.part.01
myawsbucket/fred.part.02
myawsbucket/fred.part.03
myawsbucket/fred.part.04
myawsbucket/fred.part.05
myawsbucket/fred.part.06
Continue? [y/n]
y
Deleted myawsbucket/fred.manifest.xml
Deleted myawsbucket/fred.part.00
Deleted myawsbucket/fred.part.01
Deleted myawsbucket/fred.part.02
Deleted myawsbucket/fred.part.03
Deleted myawsbucket/fred.part.04
Deleted myawsbucket/fred.part.05
Deleted myawsbucket/fred.part.06
ec2-delete-bundle complete.
```

Related Topics

- ec2-bundle-image (p. 483)
- ec2-bundle-vol (p. 486)
- ec2-unbundle (p. 499)
- ec2-upload-bundle (p. 501)
- ec2-download-bundle (p. 492)

ec2-download-bundle

Description

Download the specified bundles from S3 storage.

Syntax

```
ec2-download-bundle -b s3_bucket [-m manifest] -a access_key_id -s secret_key
-k private_key [-p ami_prefix] [-d directory] [--retry] [--url url]
```

Options

Option	Description	Required
`-b, --bucket` *`s3_bucket`*	The name of the Amazon S3 bucket where the bundle is located, followed by an optional '/'-delimited path prefix. Example: `-b myawsbucket/ami-001`	Yes
`-m, --manifest` *`manifest`*	The manifest filename (without the path). We recommend you specify either the manifest (option -m), or the filename prefix (option -p). Example: `-m my-image.manifest.xml`	No
`-a, --access-key` *`access_key_id`*	Your AWS access key ID. Example: `-a AKIAIOSFODNN7EXAMPLE`	Yes
`-s, --secret-key` *`secret_key`*	Your AWS secret access key. Example: `-s wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY`	Yes
`-k, --privatekey` *`private_key`*	The private key used to decrypt the manifest. Example: `-k pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-p, --prefix` *`ami_prefix`*	The filename prefix for the bundled AMI files. Default: `image` Example: `-p my-image`	No
`-d, --directory` *`directory`*	The directory where the downloaded bundle is saved. The directory must exist. Default: The current working directory. Example: `-d /tmp/my-downloaded-bundle`	No
`--retry`	Automatically retries on all Amazon S3 errors, up to five times per operation. Example: `--retry`	No
`--url` *`url`*	The S3 service URL. Default: `https://s3.amazonaws.com` Example: `--url https://s3.amazonaws.ie`	No

Output

Status messages indicating the various stages of the download process are displayed.

Example

This example creates the `bundled` directory and downloads the bundle from the `myawsbucket` Amazon S3 bucket.

```
$ mkdir bundled
$ ec2-download-bundle -b myawsbucket -m fred.manifest.xml -a AKIAIOSFODNN7EXAMPLE
 -s wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY -k pk-HKZYKTAIG2ECMXY
IBH3HXV4ZBEXAMPLE.pem -d bundled
downloading manifest https://s3.amazonaws.com/myawsbucket/image.manifest.xml
to bundled/image.manifest.xml ...
downloading part https://s3.amazonaws.com/myawsbucket/image.part.00 to
bundled/image.part.00 ...
Downloaded image.part.00 from https://s3.amazonaws.com/myawsbucket.
downloading part https://s3.amazonaws.com/myawsbucket/image.part.01 to
bundled/image.part.01 ...
Downloaded image.part.01 from https://s3.amazonaws.com/myawsbucket.
downloading part https://s3.amazonaws.com/myawsbucket/image.part.02 to
bundled/image.part.02 ...
Downloaded image.part.02 from https://s3.amazonaws.com/myawsbucket.
downloading part https://s3.amazonaws.com/myawsbucket/image.part.03 to
bundled/image.part.03 ...
Downloaded image.part.03 from https://s3.amazonaws.com/myawsbucket.
downloading part https://s3.amazonaws.com/myawsbucket/image.part.04 to
bundled/image.part.04 ...
Downloaded image.part.04 from https://s3.amazonaws.com/myawsbucket.
downloading part https://s3.amazonaws.com/myawsbucket/image.part.05 to
bundled/image.part.05 ...
Downloaded image.part.05 from https://s3.amazonaws.com/myawsbucket.
downloading part https://s3.amazonaws.com/myawsbucket/image.part.06 to
bundled/image.part.06 ...
Downloaded image.part.06 from https://s3.amazonaws.com/myawsbucket.
Download Bundle complete.
```

Note

This example uses the Linux and UNIX `mkdir` command.

Related Topics

- ec2-bundle-image (p. 483)
- ec2-bundle-vol (p. 486)
- ec2-unbundle (p. 499)
- ec2-upload-bundle (p. 501)
- ec2-delete-bundle (p. 490)

ec2-migrate-bundle

Description

Copy a bundled AMI from one Region to another. For information on Regions, go to the Amazon Elastic Compute Cloud User Guide.

Note

After copying a bundled AMI to a new Region, make sure to register it as a new AMI.

During migration, Amazon EC2 replaces the kernel and RAM disk in the manifest file with a kernel and RAM disk designed for the destination Region. Unless the --no-mapping parameter is given, `ec2-migrate-bundle` might use the Amazon EC2 `DescribeRegions` and `DescribeImages` operations to perform automated mappings.

Syntax

```
ec2-migrate-bundle -k private_key -c cert -a access_key_id -s secret_key --bucket
source_s3_bucket --destination-bucket destination_s3_bucket --manifest
manifest_path [--location location] [--ec2cert ec2_cert_path] [--kernel
kernel-id] [--ramdisk ramdisk_id] [--no-mapping] [--region mapping_region_name]
```

Options

Option	Description	Required
`-k, --privatekey` *private_key*	The path to the user's PEM-encoded RSA key file. Example: `-k pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-c, --cert` *cert*	The user's PEM encoded RSA public key certificate file. Example: `-c cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-a, --access-key` *access_key_id*	The AWS access key ID. Example: `-a AKIAIOSFODNN7EXAMPLE`	Yes
`-s, --secret-key` *secret_key*	The AWS secret access key. Example: `-s wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY`	Yes
`-b, --bucket` *source_s3_bucket*	The source Amazon S3 bucket where the AMI is located, followed by an optional '/'-delimited path prefix. Example: `--bucket myawsbucket`	Yes
`-d, --destination-bucket` *destination_s3_bucket*	The destination Amazon S3 bucket, followed by an optional '/'-delimited path prefix. If the destination bucket does not exist, it is created. Example: `--destination-bucket myotherawsbucket`	Yes

Option	Description	Required
`-m, --manifest` *manifest*	The location of the Amazon S3 source manifest. Default: None Example: `--manifest my-ami.manifest.xml`	Yes
`--location` *location*	The location of the destination Amazon S3 bucket. If the bucket exists and the location is specified, the tool exits with an error. if the specified location does not match the actual location. If the bucket exists and no location is specified, the tool uses the bucket's location. If the bucket does not exist and the location is specified, the tool creates the bucket in the specified location. If the bucket does not exist and location is not specified, the tool creates the bucket without a location constraint (in the US). Valid Values: `US` | `EU` | `us-west-1` | `ap-southeast-1` Default: US Example: `--location EU`	No
`--acl {public-read | aws-exec-read}`	The access control list policy of the bundled image. Valid Values: `public-read` | `aws-exec-read` Default: `aws-exec-read` Example: `--acl public-read`	No
`--retry`	Automatically retries on all Amazon S3 errors, up to five times per operation. Example: `--retry`	No
`--kernel` *kernel_id*	The ID of the kernel to select. Example: `--kernel aki-ba3adfd3`	No
`--ramdisk` *ramdisk_id*	The ID of the RAM disk to select. 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. Example: `--ramdisk ari-badbad00`	No
`--no-mapping`	Disables automatic mapping of kernels and RAM disks. Example: `--no-mapping`	No
`--region`	Region to look up in the mapping file. If no Region is specified, Amazon EC2 attempts to determine the Region from the location of the Amazon S3 bucket. Example: `--region eu-west-1`	No

Output

Status messages describing the stages and status of the bundling process.

Example

This example copies the AMI specified in the `my-ami.manifest.xml` manifest from the US to the EU.

```
$ ec2-migrate-bundle --cert cert-THUMBPRINT.pem --privatekey pk-THUMBPRINT.pem
 --access-key AKIAIOSFODNN7EXAMPLE --secret-key wJalrXUtnFEMI/K7MDENG/bPxRfi
CYEXAMPLEKEY --bucket myawsbucket --destination-bucket myotherawsbucket --
manifest my-ami.manifest.xml --location EU
Downloading manifest my-ami.manifest.xml from myawsbucket to /tmp/ami-migration-
my-ami.manifest.xml/my-ami.manifest.xml ...
Copying 'my-ami.part.00'...
Copying 'my-ami.part.01'...
Copying 'my-ami.part.02'...
Copying 'my-ami.part.03'...
Copying 'my-ami.part.04'...
Copying 'my-ami.part.05'...
Copying 'my-ami.part.06'...
Copying 'my-ami.part.07'...
Copying 'my-ami.part.08'...
Copying 'my-ami.part.09'...
Copying 'my-ami.part.10'...
Your new bundle is in S3 at the following location:
myotherawsbucket/my-ami.manifest.xml
```

Related Topics

- ec2-register (p. 405)
- ec2-run-instances (p. 458)

ec2-migrate-manifest

Description

Modify a bundled AMI to work in a new Region. For information on Regions, go to the Amazon Elastic Compute Cloud User Guide.

You must use this command if you are bundling in one Region for use in another or if you copy a bundled AMI out of band (without using `ec2-migrate-bundle`) and want to use it in a different Region.

Note

This command replaces the kernel and RAM disk in the manifest file with a kernel and RAM disk designed for the destination Region.

Syntax

```
ec2-migrate-manifest -k private_key -c cert -m manifest_path {(-a access_key_id
-s secret_key --region mapping_region_name) | --no-mapping} [--kernel kernel-id]
[--ramdisk ramdisk_id] [--ec2cert ec2_cert_path]
```

Options

Option	Description	Required
`-k, --privatekey` *private_key*	The path to the user's PEM-encoded RSA key file. Example: `-k pk-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-c, --cert` *cert*	The user's PEM encoded RSA public key certificate file. Example: `-c cert-HKZYKTAIG2ECMXYIBH3HXV4ZBEXAMPLE.pem`	Yes
`-a, --access-key` *access_key_id*	The AWS access key ID. Condition: Required if using automatic mapping. Example: `-a AKIAIOSFODNN7EXAMPLE`	Conditional
`-s, --secret-key` *secret_key*	The AWS secret access key. Condition: Required if using automatic mapping. Example: `-s wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY`	Conditional
`--manifest` *manifest_path*	The manifest file. Example: `--manifest my-ami.manifest.xml`	Yes
`--kernel` *kernel_id*	The ID of the kernel to select. Example: `--kernel aki-ba3adfd3`	No

Option	Description	Required
`--ramdisk` *ramdisk_id*	The ID of the RAM disk to select. 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. Example: `--ramdisk ari-badbad00`	No
`--mapping-file` *mapping_file*	Overrides the file containing kernel and RAM disk Region mappings. Example: `--mapping-file eu-mappings`	No
`--mapping-url` *url*	Overrides the file containing kernel and RAM disk Region mappings from the specified hostname portion of a URL. Example: `--mapping-url mysite.com/eu-mappings`	No
`--no-mapping`	Disables automatic mapping of kernels and RAM disks. Condition: Required if you're not providing the `-a`, `-s`, and `--region` options (which are used for automatic mapping).	Conditional
`--region`	Region to look up in the mapping file. Condition: Required if using automatic mapping. Example: `--region eu-west-1`	Conditional

Output

Status messages describing the stages and status of the bundling process.

Example

This example copies the AMI specified in the `my-ami.manifest.xml` manifest from the US to the EU.

```
$ ec2-migrate-manifest --manifest my-ami.manifest.xml --cert cert-HKZYKTAIG2ECMXY
IBH3HXV4ZBZQ55CLO.pem --privatekey pk-HKZYKTAIG2ECMXYIBH3HXV4ZBZQ55CLO.pem --
region eu-west-1

Backing up manifest...
Successfully migrated my-ami.manifest.xml It is now suitable for use in eu-west-
1.
```

Related Topics

- ec2-register (p. 405)
- ec2-run-instances (p. 458)

ec2-unbundle

Description

Recreates the AMI from the bundled AMI parts.

Syntax

```
ec2-unbundle -m manifest -k private_key [-d destination_directory] [-s source_directory]
```

Options

Option	Description	Required
`-m, --manifest` *manifest*	The path to the unencrypted AMI manifest file. Example: `-m /var/spool/my-first-bundle/Manifest`	Yes
`-k, --privatekey` *private_key*	The path to your PEM-encoded RSA key file. Example: `-k $HOME/pk-234242example.pem`	Yes
`-d, --destination` *destination_directory*	The directory in which to unbundle the AMI. The destination directory must exist. Default: The current directory. Example: `-d /tmp/my-image`	No
`-s, --source` *source_directory*	The directory containing the bundled AMI parts. Default: The current directory. Example: `-s /tmp/my-bundled-image`	No

Example

This Linux and UNIX example unbundles the AMI specified in the `fred.manifest.xml` file.

```
$ mkdir unbundled
$ ec2-unbundle -m fred.manifest.xml -s bundled -d unbundled


$ ls -l unbundled
total 1025008
-rw-r--r-- 1 root root 1048578048 Aug 25 23:46 fred.img
```

Output

Status messages indicating the various stages of the unbundling process are displayed.

Related Topics

- ec2-bundle-image (p. 483)
- ec2-bundle-vol (p. 486)
- ec2-upload-bundle (p. 501)
- ec2-download-bundle (p. 492)
- ec2-delete-bundle (p. 490)

ec2-upload-bundle

Description

Upload a bundled AMI to Amazon S3 storage.

Syntax

```
ec2-upload-bundle -b s3_bucket -m manifest -a access_key_id -s secret_key [--acl acl] [-d directory] [--part part] [--location location] [--url url] [--retry] [--skipmanifest]
```

Options

Option	Description	Required
`-b, --bucket` *s3_bucket*	The name of the Amazon S3 bucket in which to store the bundle, followed by an optional '/'-delimited path prefix. If the bucket doesn't exist it will be created (if the bucket name is available). Example: `-b myawsbucket/ami-001`	Yes
`-m, --manifest` *manifest*	The path to the manifest file. The manifest file is created during the bundling process and can be found in the directory containing the bundle. Example: `-m image.manifest.xml`	Yes
`-a, --access-key` *access_key_id*	Your AWS access key ID. Example: `-a AKIAIOSFODNN7EXAMPLE`	Yes
`-s, --secret-key` *secret_key*	Your AWS secret access key. Example: `-s wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY`	Yes
`--acl` *acl*	The access control list policy of the bundled image. Valid Values: `public-read` | `aws-exec-read` Default: `aws-exec-read` Example: `--acl public-read`	No
`-d, --directory` *directory*	The directory containing the bundled AMI parts. Default: The directory containing the manifest file (see the `-m` option). Example: `-d /var/run/my-bundle`	No
`--part` *part*	Starts uploading the specified part and all subsequent parts. Example: `--part 04`	No

Option	Description	Required
`--location` *location*	The location of the destination Amazon S3 bucket. If the bucket exists and you specify a location that doesn't match the bucket's actual location, the tool exits with an error. If the bucket exists and you don't specify a location, the tool uses the bucket's location. If the bucket does not exist and you specify a location, the tool creates the bucket in the specified location. If the bucket does not exist and you don't specify a location, the tool creates the bucket without a location constraint (in the US). Valid Values: US | EU | `us-west-1` | `ap-southeast-1` Default: US Example: `--location EU`	No
`--url` *url*	The S3 service URL. Default: `https://s3.amazonaws.com` Example: `--url https://s3.amazonaws.ie`	No
`--retry`	Automatically retries on all Amazon S3 errors, up to five times per operation. Example: `--retry`	No
`--skipmanifest`	Does not upload the manifest. Example: `--skipmanifest`	No

Output

Amazon EC2 displays status messages that indicate the stages and status of the upload process.

Example

This example uploads the bundle specified by the `bundled/fred.manifest.xml` manifest.

```
$ ec2-upload-bundle -b myawsbucket -m bundled/fred.manifest.xml -a AKIAIOSFOD
NN7EXAMPLE -s wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
Creating bucket...
Uploading bundled image parts to the S3 bucket myawsbucket ...
Uploaded fred.part.00
Uploaded fred.part.01
Uploaded fred.part.02
Uploaded fred.part.03
Uploaded fred.part.04
Uploaded fred.part.05
Uploaded fred.part.06
Uploaded fred.part.07
Uploaded fred.part.08
Uploaded fred.part.09
Uploaded fred.part.10
Uploaded fred.part.11
Uploaded fred.part.12
Uploaded fred.part.13
```

```
Uploaded fred.part.14
Uploading manifest ...
Uploaded manifest.
Bundle upload completed.
```

Related Topics

- ec2-bundle-image (p. 483)
- ec2-bundle-vol (p. 486)
- ec2-unbundle (p. 499)
- ec2-download-bundle (p. 492)
- ec2-delete-bundle (p. 490)

Document History

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

API version: 2012-06-01.

Latest documentation update: April 19, 2012.

Change	Description	Release Date
Support for AWS Marketplace and a New API Version	Added support for AWS Marketplace AMIs and a new API version: 2012-04-01.	19 April 2012
Amazon EBS Volume Status Check	Starting with API version 2012-03-01, you can check the operational status of your Amazon EBS volume. The volume status check gives you information about the I/O, also known as read/write, capability of your EBS volumes. The volume status check lets you know when an EBS volume's data is potentially inconsistent. Amazon Web Services (AWS) gives you options to handle the potentially inconsistent volume. For information on the commands related to this release, see: • ec2-describe-volume-status (p. 316) • ec2-modify-volume-attribute (p. 394) • ec2-describe-volume-attribute (p. 313) • ec2-enable-volume-io (p. 351)	18 April 2012

Change	Description	Release Date
Amazon EBS Volume Status Check	Starting with API version 2012-03-01, you can check the operational status of your Amazon EBS volume. The volume status check gives you information about the I/O, also known as read/write, capability of your EBS volumes. The volume status check lets you know when an EBS volume's data is potentially inconsistent. Amazon Web Services (AWS) gives you options to handle the potentially inconsistent volume. For information on the commands related to this release, see: • ec2-describe-volume-status (p. 316) • ec2-modify-volume-attribute (p. 394) • ec2-describe-volume-attribute (p. 313) • ec2-enable-volume-io (p. 351)	12 March 2012
Instance Status Checks	Starting with API version 2011-12-15, you can use the `ec2-describe-instance-status` command to retrieve results of automated checks performed by Amazon EC2. These status checks detect problems that may impair an instance's ability to run your applications. You can use `ec2-report-instance-status` to send us feedback or report an inaccurate instance status.	30 December 2011
Elastic Network Interfaces (ENIs) for Amazon EC2 Instances in Amazon Virtual Private Cloud	Starting with API version 2011-12-01, you can attach an elastic network interface (ENI) to an EC2 instance in a VPC. For more information, see: • ec2-attach-network-interface (p. 28) • ec2-detach-network-interface (p. 337) • ec2-create-network-interface (p. 89) • ec2-delete-network-interface (p. 146) • ec2-describe-network-interfaces (p. 248) • ec2-describe-network-interface-attribute (p. 254) • ec2-modify-network-interface-attribute (p. 387) • ec2-reset-network-interface-attribute (p. 444)	21 December 2011
New Offering Types for Amazon EC2 Reserved Instances	Starting with API version 2011-11-01, you can use the new *`offering-type`* parameter of `ec2-describe-reserved-instances-offerings` to identify the Reserved Instance offerings that address your projected use: *Heavy Utilization*, *Medium Utilization*, and *Light Utilization*. See ec2-describe-reserved-instances-offerings (p. 268).	01 December 2011
Support for Amazon EC2 Instance Status	The ec2-describe-instance-status (p. 231) command allows you to view the status of your instances and any upcoming scheduled events.	14 November 2011

Change	Description	Release Date
Support for Amazon EC2 Spot Instances in Amazon VPC	The ec2-request-spot-instances (p. 430) command is updated with the `subnet` option, which enables you to specify an Amazon VPC subnet into which to launch your Spot Instances.	11 October 2011
Added common options table to each entry	The common options table now appears in each command description as well as on the existing Common Options for API Tools (p. 5) page.	18 September 2011
Updates to VM import functionality	We've added `ec2-resume-import` for restarting an incomplete upload at the point the task stopped, and deprecated `ec2-upload-disk-image` because its functionality is now performed by the enhanced `ec2-import-instance` and `ec2-import-volume`. For more information, see the API actions: • ec2-resume-import • ec2-upload-disk-image • ec2-import-instance • ec2-import-volume.	15 September 2011
Support for VHD file format added to the 2011-07-15 API version	We've added VHD as one of the VM file formats supported for import into Amazon EC2. See the API actions ImportInstance and ImportVolume, and the CLI commands ec2-import-instance and ec2-import-volume.	24 August 2011
Spot Instances Availability Zone pricing changes	We've updated several actions that explain API changes for the Spot Instances Availability Zone pricing feature. We've also added new Availability Zone pricing options as part of the information returned by Spot Instance Requests and Spot Price History API calls.	26 May 2011
Updates for the 2011-05-15 API Version	We've updated several existing actions for the 2011-05-15 API release.	26 May 2011
Dedicated Instances	As part of the Dedicated Instances feature release, we've added new options related to the tenancy attribute of instances, and the instance tenancy attribute of VPCs.	27 March 2011
Updates for the 2011-02-28 API version	We've updated several existing actions for the 2011-02-28 API release.	27 March 2011
Updates for the 2011-01-01 API version	We've added new actions and updated several existing actions for the 2011-01-01 API release. The new and updated actions are related to these Amazon VPC objects: Internet gateways, route tables, network ACLs, VPC security groups, and VPC Elastic IP addresses.	11 March 2011
Merged Amazon VPC Documentation	We've merged the Amazon VPC actions into this guide.	11 March 2011

Change	Description	Release Date
VM Import	Added the following new actions, which allow you to import a virtual machine or volume into Amazon EC2: • ec2-import-instance (p. 361) • ec2-import-volume (p. 370) • ec2-upload-disk-image (p. 478) • ec2-describe-conversion-tasks (p. 189) • ec2-cancel-conversion-task (p. 50)	15 December 2010
Modifying Block Device Mapping	Removed information from ec2-modify-instance-attribute (p. 383) about modifying an instance's block device mapping attribute. You currently can't modify an instance's block device mapping with this action.	20 November 2010
Filters and Tags	Added information about filters to many of the *describe* actions. Added information about creating, describing, and deleting tags. For more information about the commands for tags, see ec2-create-tags (p. 110), ec2-delete-tags (p. 162), and ec2-describe-tags (p. 304).	19 September 2010
Idempotent Instance Launch	Updated `ec2-run-instances` to include a `--client-token` option to ensure idempotency. For more information about the change, see ec2-run-instances (p. 458).	19 September 2010
Import Key Pair	Added `ec2-import-keypair` . For more information, see ec2-import-keypair (p. 367).	19 September 2010
Placement Groups for Cluster Compute Instances	Added information about placement groups, which you use with cluster compute instances. For more information about the commands for placement groups, see ec2-create-placement-group (p. 92), ec2-describe-placement-groups (p. 257), and ec2-delete-placement-group (p. 148).	12 July 2010
Amazon VPC IP Address Designation	Amazon VPC users can now specify the IP address to assign an instance launched in a VPC. For information about the using the `--private-ip-address` parameter with `ec2-run-instances`, see ec2-run-instances (p. 458).	12 July 2010
Security Group Permissions	Clarified the information about authorizing security group permissions. For more information, see ec2-authorize (p. 37).	28 April 2010
New Region	Amazon EC2 now supports the Asia Pacific (Singapore) Region. The new endpoint for requests to this Region is ec2.ap-southeast-1.amazonaws.com.	28 April 2010

Change	Description	Release Date
Clarification about Spot Instances	Clarified that you can't stop and start Spot Instances that use an Amazon EBS root device. For more information about stopping instances, see ec2-stop-instances (p. 470).	1 February 2010
Spot Instances	To support customers that use Amazon EC2 instances, but have more flexible usage requirements (e.g., when instances run, how long they run, or whether usage completes within a specific timeframe), Amazon EC2 now provides Spot Instances. A Spot Instance is an instance that Amazon EC2 automatically runs for you when its maximum price is greater than the Spot Price. For conceptual information about Spot Instances, go to the Amazon Elastic Compute Cloud User Guide.	14 December 2009