

QuantGo CLI User's Manual

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Description

This CLI tool provides ability to control VQL environment via command line.

Following list of actions is supported:

- describe-regions
- create-keypair
- set-instance-type
- terminate-instances
- get-login-ports
- attach-volume
- create-volume
- reboot-instances
- detach-volume
- create-tags
- describe-volumes
- delete-volume
- list-gateway-types
- describe-key-pairs
- get-gateway-type
- delete-tags
- get-console-output
- delete-instance-name
- describe-instances
- set-instance-name
- delete-keypair
- run-instances
- stop-instances
- set-gateway-type
- list-instance-types
- start-instances
- describe-tags
- help

This tool should work on python 2.6.x and 2.7.x.

Installation

Easiest way to install quantgo-cli is using pip. You can install it into virtualenv:

```
$ pip install git+https://github.com/aquanyc/UserCLI.git
```

or globally:

```
$ sudo pip install git+https://github.com/aquanyc/UserCLI.git
```

In case you want to install it via easy_install, clone or download git repository and install:

```
$ git clone https://github.com/aquanyc/UserCLI.git  
$ easy_install UserCLI
```

In case of system wide installation, use sudo.

To install it manually, clone repository and type in console:

```
$ git clone https://github.com/aquanyc/UserCLI.git  
$ cd UserCLI  
$ python setup.py install
```

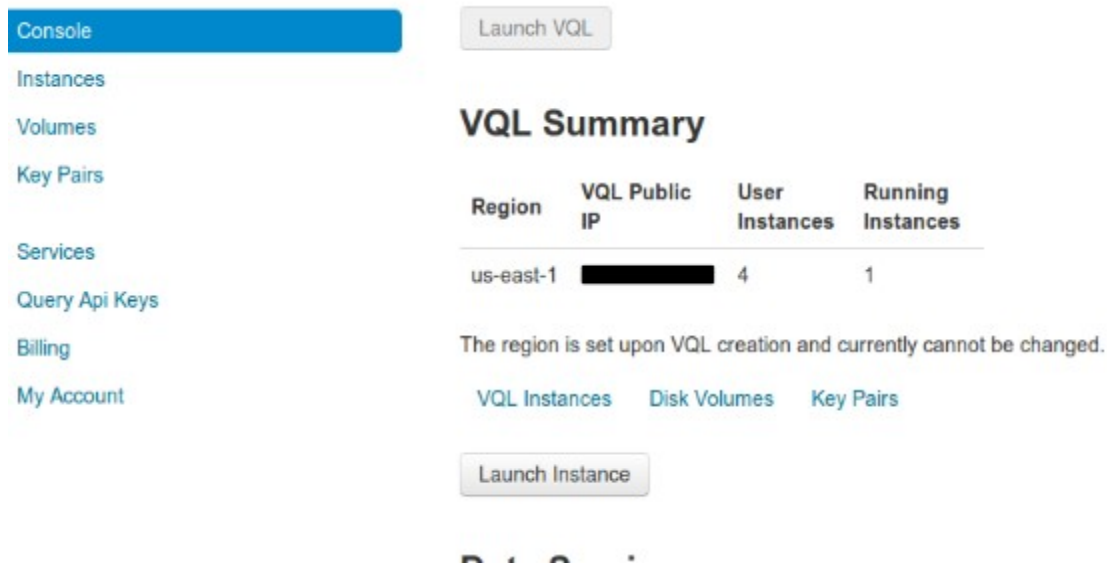
In case of system wide installation, use sudo.

To enable autocompletion feature type:

```
$ complete -C quantgo_complete quantgo
```

Getting Started

Before you can start using quantgo cli you must create VQL environment and set your Query API keys into quantgo cli config file. To do that, log into QuantGo site and go to Console page:



The screenshot shows the QuantGo Console interface. On the left is a sidebar with navigation links: Console (highlighted), Instances, Volumes, Key Pairs, Services, Query Api Keys, Billing, and My Account. At the top right is a 'Launch VQL' button. Below it is the 'VQL Summary' section, which contains a table with the following data:

Region	VQL Public IP	User Instances	Running Instances
us-east-1	[REDACTED]	4	1

Below the table, a message states: 'The region is set upon VQL creation and currently cannot be changed.' Underneath this message are three links: 'VQL Instances', 'Disk Volumes', and 'Key Pairs'. At the bottom of the console area is a 'Launch Instance' button.

The “Launch VQL” button will allow you to create VQL. You will be asked for region where to create environment. After VQL will be created button “Launch Instance” become active. Also please copy your region name and save it somewhere. Now go to “Query Api Keys” tab.

QuantGO Demo Data Services Features

Home / Query API Keys

Console
Instances
Volumes
Key Pairs
Services
Query API Keys
Billing
My Account

Query API Keys

You can enable and disable your QueryAPI access which controls the User CLI and HTTP queries working with Query API is : **Enabled**

QueryAPI Access and Secret Key

QNet provides Query API that you use to control your Virtual Quant Lab instances from our user command line instead of just using the web console.

For security, each call to the Query API includes a unique signature that QNet uses to identify the request and QNet receives the HTTP query it identifies the requestor by the public Access key and verifies the signature using the secret key.

Do not give your Secret key to anyone else as they can then control your VQL.

You current Keys

Public Access Key

Private Access Key

Note: Your current keys will no longer be valid.

Copy your “Public Access Key” and “Private Access Key”.

It is time to set configuration values for quantgo-cli. If you will try to run it without these values, you will note it responds with message:

```
(venv)ubuntu@ip-10-0-0-250:~$ qnet describe-regions
You must either set environment variable QNET_ACCESS_KEY or setup config file.
NOTE: config file path is /home/ubuntu/UserCLI/qnet_cli/config.py.
(venv)ubuntu@ip-10-0-0-250:~$
```

The message explains you that you can either set environment variable or define options via config file. Use your favourite editor to open config file and type in values you've got from website:

```
access_key = 'EASASD789AS89A3F'
secret_key = 'qwerSADSGFqweyKEkpZJcI[JkbzdK@IE'
region = 'us-east-1'
```

Now save file and try quantgo cli command, for example:

```
(venv)ubuntu@ip-10-0-0-250:~$ qnet describe-regions
{
  "Message": {
    "Regions": [
      {
        "Endpoint": "ec2.eu-west-1.amazonaws.com",
        "RegionName": "eu-west-1"
      },
      {
        "Endpoint": "ec2.sa-east-1.amazonaws.com",
        "RegionName": "sa-east-1"
      },
      {
        "Endpoint": "ec2.us-east-1.amazonaws.com",
        "RegionName": "us-east-1"
      },
      {
        "Endpoint": "ec2.ap-northeast-1.amazonaws.com",
        "RegionName": "ap-northeast-1"
      },
      {
        "Endpoint": "ec2.us-west-2.amazonaws.com",
        "RegionName": "us-west-2"
      },
      {
        "Endpoint": "ec2.us-west-1.amazonaws.com",
        "RegionName": "us-west-1"
      },
      {
        "Endpoint": "ec2.ap-southeast-1.amazonaws.com",
        "RegionName": "ap-southeast-1"
      },
      {
        "Endpoint": "ec2.ap-southeast-2.amazonaws.com",
        "RegionName": "ap-southeast-2"
      }
    ],
    "ResponseMetadata": {
      "RequestId": "f58f4efb-e1a5-45a5-9996-663eaaa1397b"
    }
  },
  "Result": true
}
(venv)ubuntu@ip-10-0-0-250:~$
```

If values you entered were correct you should see same results on your screen. Now you can proceed manipulating your VQL environment.

QuantGo CLI Command Reference

describe-regions

Returns names of available regions.

Example:

```
$ quantgo describe-regions
```

create-keypair

Creates key pair used to access instances.

Command Parameters:

Parameter Name	Parameter Type	Description
key-name	array	Name of key pair.

Example:

```
$ quantgo create-keypair --key-name mykey
```

get-gateway-type

Displays gateway type.

Example:

```
$ quantgo get-gateway-type
```

set-instance-type

Allows user to change instance type.

Command Parameters:

Parameter Name	Parameter Type	Description
----------------	----------------	-------------

instance-type	string	The type of the instance to set to.
instance-id	string	The ID of the instance.

Example:

```
$ quantgo set-instance-type --instance-id i-d19e0ba9 --instance-type m1.small
```

terminate-instances

Allows to terminate user instances.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-ids	list	IDs of instances.

Example:

```
$ quantgo terminate-instances --instance-ids i-d19e0ba9
```

get-login-ports

Allows user to get port forwarding details for specified instance ID.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-id	string	The ID of the instance.

Example:

```
$ quantgo get-login-ports --instance-id i-d19e0ba9
```

attach-volume

Allows to attach volume to user instance.

Command Parameters:

Parameter Name	Parameter	Description
----------------	-----------	-------------

	Type	
device	string	The device name as exposed to the instance (e.g., /dev/sdh, or xvdf).
volume-id	string	The ID of the Amazon EBS volume. The volume and instance must be within the same Availability Zone.
instance-id	string	The ID of the instance. The instance must be running.

Example:

```
$ quantgo attach-volume --instance-id i-d19e0ba9 --volume-id vol-76fb9e01 --device xvdf
```

set-gateway-type

Allows user to change gateway type.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-type	string	The type of the gateway instance to change to.

Example:

```
$ quantgo set-gateway-type --instance-type m1.medium
```

create-volume

Allows to create EBS volumes.

Command Parameters:

Parameter Name	Parameter Type	Description
snapshot-id	string	The snapshot from which to create the new volume.
size	integer	The size of the volume, in GiBs.

Example:

```
$ quantgo create-volume --size 10
```

```
$ quantgo create-volume --snapshot-id snap-e364a8e4
```

reboot-instances

Allows to reboot user instances.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-ids	list	IDs of instances.

Example:

```
$ quantgo reboot-instances --instance-ids i-d19e0ba9 i-7fc2e507
```

detach-volume

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.

Command Parameters:

Parameter Name	Parameter Type	Description
volume-id	string	The ID of the Amazon EBS volume. The volume and instance must be within the same Availability Zone.
device	string	The device name as exposed to the instance (e.g., /dev/sdh, or xvdh).
force	boolean	Forces detachment if the previous detachment attempt did not occur cleanly.
instance-id	string	The ID of the instance.

Example:

```
$ quantgo detach-volume --volume-id vol-76fb9e01
```

```
$ quantgo detach-volume --volume-id vol-76fb9e01 --force
```

create-tags

Allows user to add tags for specified resources.

Command Parameters:

Parameter Name	Parameter Type	Description
resource-id	string	The ID of the resource.
tags	json blob	Tags list.

Example:

```
$ quantgo create-tags --resource-id i-d19e0ba9 --tags '[{"Key": "Name", "Value": "Test"}]'
```

describe-volumes

Allows to see information about volumes.

Command Parameters:

Parameter Name	Parameter Type	Description
volume-ids	array	Volumes IDs.

Example:

```
$ quantgo describe-volumes --volume-ids vol-76fb9e01 vol-9ff028e8
```

```
$ quantgo describe-volumes
```

delete-volume

Allows to delete EBS volumes.

Command Parameters:

Parameter Name	Parameter Type	Description
volume-id	string	The ID of the volume.

Example:

```
$ quantgo delete-volume --volume-id vol-76fb9e01
```

describe-key-pairs

Displays information about user key pairs.

Command Parameters:

Parameter Name	Parameter Type	Description
key-name	string	The name of key pair.

Example:

```
$ quantgo describe-key-pairs
```

```
$ quantgo describe-key-pairs --key-name test
```

list-gateway-types

Displays available gateway types.

Example:

```
$ quantgo list-gateway-types
```

delete-tags

Allows user to remove tags for specified resources.

Command Parameters:

Parameter Name	Parameter Type	Description
resource-id	string	The ID of the resource.
tags	string	Tags list.

Example:

```
$ quantgo delete-tags --resource-id i-d19e0ba9 --tags '[{"Key": "Name"}]'
```

```
$ quantgo delete-tags --resource-id i-d19e0ba9
```

get-console-output

Allows user to get console output from specified instance ID.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-id	string	The ID of the instance.

Example:

```
$ quantgo get-console-output --instance-id i-d19e0ba9
```

delete-instance-name

Allows user to unset instance Name tag.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-id	string	The ID of the instance.

Example:

```
$ quantgo delete-instance-name --instance-id i-d19e0ba9
```

describe-instances

Allows to see information about instances.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-ids	list	Instances IDs.

Example:

```
$ quantgo describe-instances
```

```
$ quantgo describe-instances --instance-ids i-d19e0ba9 i-b5cc24cc
```

set-instance-name

Allows user to set instance name.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-id	string	The ID of the instance.
instance-name	string	The desired name you want to set to instance.

Example:

```
$ quantgo set-instance-name --instance-id i-d19e0ba9 --instance-name WhateverName
```

delete-keypair

Deletes specified key pair.

Command Parameters:

Parameter Name	Parameter Type	Description
key-name	string	Name of key pair.

Example:

```
$ quantgo delete-keypair --key-name test
```

run-instances

Allows to start instances with specified parameters.

Command Parameters:

Parameter Name	Parameter Type	Description
image-id	string	Image name to use when creating instance.
count	integer	Number of instances to start.
key-name	string	Name of key pair to use when accessing instance.
login-protocol	enum	Define protocol to use when accessing instance. Possible values: 'ssh', 'rdp', '22', '3389', 'linux', 'windows'. Choose based on instance OS type.
user-data	string	The Base64-encoded MIME user data to

		be made available to the instance(s).
instance-type	string	Instance type. Refer to list-instance-types command to get list of instance types. Defaulted to t1.micro.
instance-initiated-shutdown-behavior	enum	Define whether instance would be terminated when stopped. Possible values: 'stop' or 'terminate'. Defaulted to 'stop'.

Example:

```
$ quantgo run-instances --image-id ami-9b85eef2 --count 1 --key-name mykey --login-protocol linux
```

```
$ quantgo run-instances --image-id ami-9b85eef2 --count 1 --key-name mykey --login-protocol linux --instance-type m1.small --instance-initiated-shutdown-behavior terminate
```

stop-instances

Allows to stop user instances.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-ids	list	IDs of instances.

Example:

```
$ quantgo stop-instances --instance-ids i-64a40603
```

list-instance-types

Allows user to get information about available instance types.

Example:

```
$ quantgo list-instance-types
```

start-instances

Allows to start user instances.

Command Parameters:

Parameter Name	Parameter Type	Description
instance-ids	list	IDs of instances.

Example:

```
$ quantgo start-instances --instance-ids i-64a40603
```

describe-tags

Allows user to get information about created tags.

Command Parameters:

Parameter Name	Parameter Type	Description
resource-id	string	The ID of the resource.

Example:

```
$ quantgo describe-tags
```

```
$ quantgo describe-tags --resource-id i-64a40603
```