2 Configure users and Use commands

Now that you have the basic software installed and configured for use, we need to inform it more specifically how to apply security and what users it will have.

You will do these commands as root user on multicloud1.

# Signature version 2

First you need to configure the AWS cli to communicate using its signature version 2 for security.

aws configure set default.ec2.signature\_version v2

# Configure cloudstack

To add yourself as a cloudstack user you have to **go to the cloudstack web UI** and do the following as the selected user (admin in your case).

Accounts > admin > press the View Users button > admin

There are three circles toward the upper right of the "admin" user page. From left to right they are:

Edit Change password **Generate keys**

press the **"Generate keys"** button with an icon that looks like a folded page (kinda-sorta).

To the prompt press OK

You should see two new elements at the bottom of the Admin window group. One element is "API key" and the other "Secret key".

To configure cloudstack issue:

aws configure --profile cloudstack

To the prompts answer:

AWS Access Key ID [None]: the API Key Id from cloudstack/admin

AWS Secret Access Key [None]: the Secret key id from cloudstack/admin

Default region name [None]: zone1 (or whatever your zone is called)

Default output format [None]: json

Setting a default signature version doesn't appear to work with the docker container. So, we will specify it in the cloudstack profile.

aws configure set profile.cloudstack.ec2.signature\_version v2

The docker install cannot access the credential information from the configuration above, so you have to do the same thing for the container with the curl command below. But you ONLY have to do this for Cloudstack (when you configure AWS this step will be omitted).

curl -d AWSSecretKey=yoursecretkey -d AWSAccessKeyId=yourapikey -d Action=RegisterSecretKey <http://localhost:5000>

You should get back a message in XML format that includes a <message> tag with the message "Successfully Registered!".

NOTE: if you stop the docker container, you will need to re-do this curl command again after the "docker run" command.

# Test cloudstack

AWS has one query "language" and Cloudstack has its own. The logic running in the docker container converts AWS queries to Cloudstack, and Cloudstack responses to AWS format.

In this way, the user/programmer only has to deal with one set of commands and one format of output.

Your Cloudstack system must be operational; your docker container must be running (and have the secret strings applied by the curl command).

To make a query of cloudstack, you need to know the aws cli command set.

The commands are at

<https://docs.aws.amazon.com/cli/latest/reference/ec2/index.html>

Here is an example of the describe

aws ec2 **describe-availability-zones** --endpoint=http://localhost:5000 --profile cloudstack

This should return a json document with both (or all) your zones. If you have only the one zone (zone1) you may be underwhelmed.

# Configure amazon

**If** you have an Amazon account, and you want to set this up for yourself you can follow this guide from Amazon to create an AWS Access key ID and a Secret access key

https://docs.aws.amazon.com/powershell/latest/userguide/pstools-appendix-sign-up.html

[Most of you can just select your User Name > Security Credentials > Access Keys]

Whatever the source, after you have them you will do:

aws configure --profile amazon

The prompts will be:

AWS Access Key ID: supply the access key here

AWS Secret Access Key: supply the secret key

Default region name: from your instructor -- mine is: us-west-2

Default output format: json

When you use Amazon, you have to know the endpoint URL and point it at the amazon profile.

The URL is: https://ec2.us-west-2.amazonaws.com (if you are using the Instructor's site)

So a command would be:

aws ec2 describe-availability-zones --endpoint-url=https://ec2.us-west-2.amazonaws.com --profile amazon

In the Deliverables doc that follows you will explore a few of these commands.