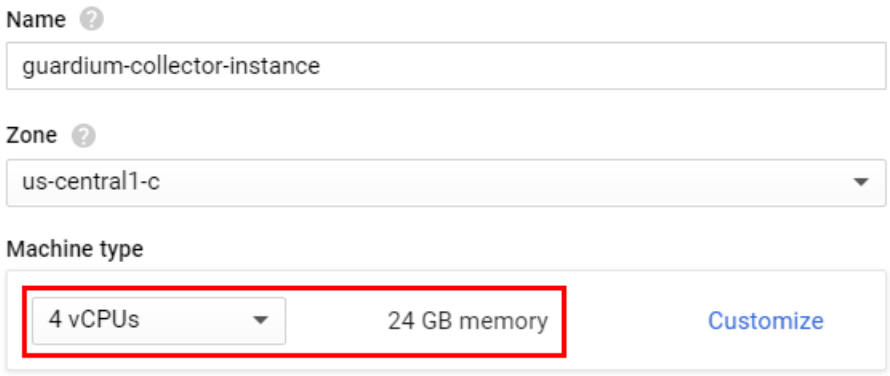
IBM Security Guardium Cloud Deployment Guide Google

Prerequisites

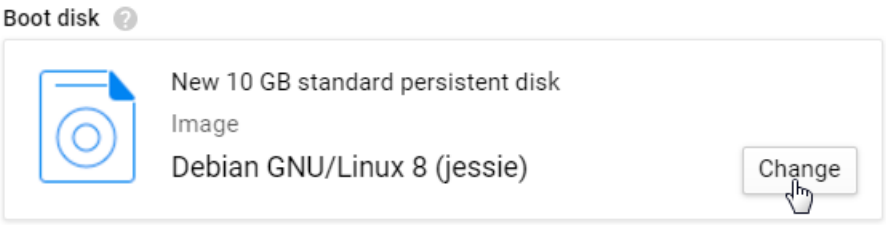
- Join the following Google group to gain access to the Google Multi-Cloud Images: https://groups.google.com/forum/#!forum/ibmsecurityguardium

Deployment Procedure:

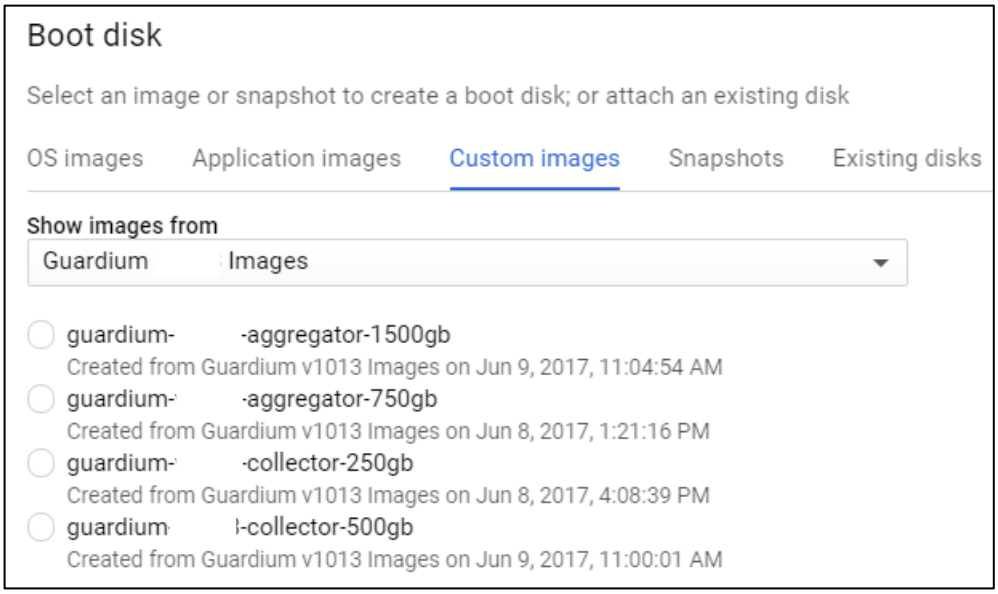
1. Navigate to https://console.cloud.google.com
2. Select your Google project to deploy the Guardium appliance(s) on
3. In the menu pane, navigate to *Compute Engine*
4. Click on *VM instances*
5. Click on *Create Instance*
    a. Provide a name for the instance
    b. Select a zone
    c. Select a Machine Type
    Note: IBM Security Guardium requires a minimum 4 vCPUs and 24 GB RAM



    d. In the Boot Disk section, click *Change*



i. Click the *Custom Images* tab
ii. Under *Show Images From* select the *Guardium Images* project
iii. From the images list, select the IBM Security Guardium image per your requirements



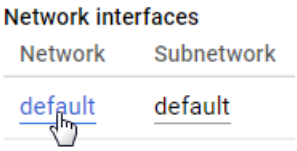
iv. Click on *Select*

e. Click *Create* to deploy the VM

Configuring the Network

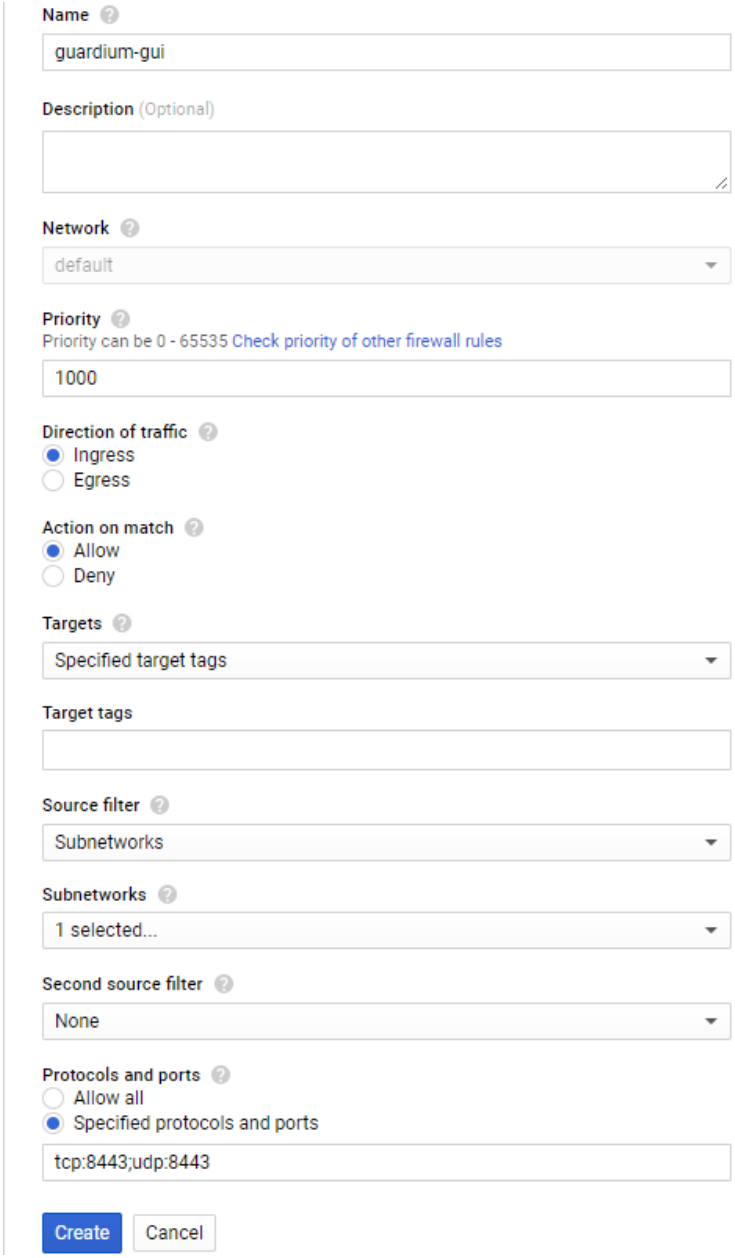
Once the instance is created it will appear listed in the VM Instances page. By default, most ports will be blocked by the firewall. To configure the wire wall rules and open specific ports, follow the steps below.

1. Click on the instance name
2. Scroll down to *Network interfaces* and click on the network name



3. Scroll down to *Firewall rules* and click on *Add firewall rule*
4. Enter a Name for the Firewall rule
5. Enter a Description
6. Under *Source Filter* select *Subnetworks*

7. Under the *Subnetworks* drop down menu select the subnetworks that apply to your environment
8. Under *Protocols and ports* add the following ports: “tcp:8443;udp:8443” to be able to connect to the GUI



9. Click on **Create**

10. Repeat step 8 for the following ports:
    For **GIM**: “tcp:8444-8446; tcp:8081”
    For **FAM**: “tcp:16022-16023”
    For **Unix STAP**: “tcp:16016-16018”
    For **Windows STAP**: “tcp:9500-9501”
    For **Quick Search**: “tcp:8983; tcp:9983”
    For **MySQL**: “tcp:3306”

For a complete list of ports that are utilized in IBM Security Guardium, please refer to the following Technote: http://www-01.ibm.com/support/docview.wss?uid=swg21973188

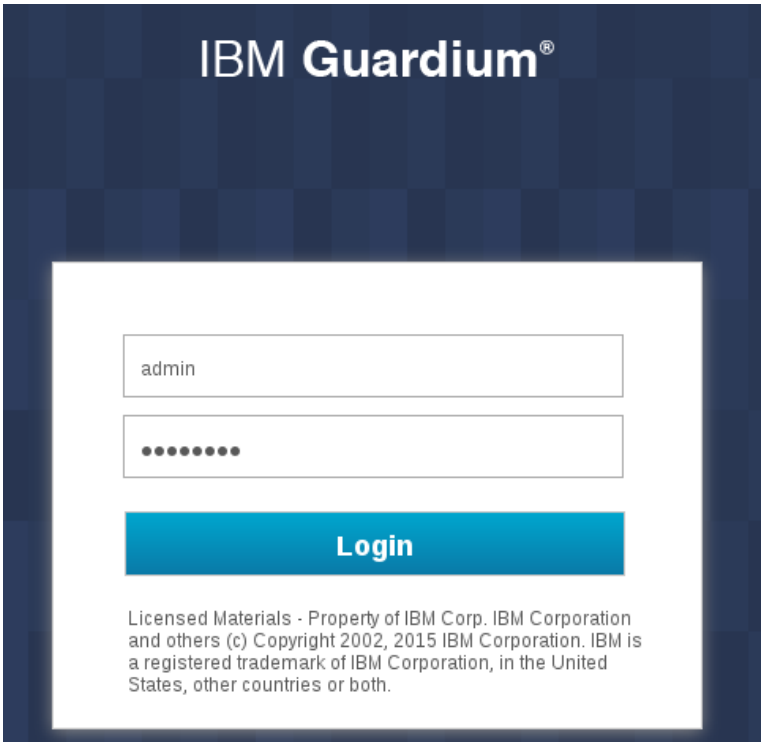
Connecting to the Guardium Appliance in the Cloud

To connect to the Guardium appliance configured with the above firewall rules, you will need to establish a VPN connection and connect your existing network to the Google Cloud Platform network. Here are the steps describing how to create a configure a VPN connection In Google Cloud:

https://cloud.google.com/compute/docs/vpn/overview

Connect to the GUI

Once you have a VPN connection established open a web browser to this address: **https://<guardium-ip>:8443**. Login with the credentials provided by Guardium, the system will ask you to change the password upon first login



Connect to the CLI

To connect to the Guardium CLI, ssh (or use Putty) to the Guardium IP and login as user **cli**. If this is the first-time logging into the system you will be prompted to change the password. Please save this password in a secure location.

Configuring Appliance Network:

1. Select the VM on the *VM instances* page in the Google Cloud Platform
2. Scroll down to the *Network interfaces* section
3. Make a note of the private IP associated with the VM

Network interfaces

Network	Subnetwork	Primary internal IP	Alias IP ranges	External IP	IP forwarding
default	default	10.128.0.5	—		Off

4. Configure network settings
    a. SSH into the appliance using the private ip as CLI user
    b. Change your password on first login

```
ssh cli@10.142.0.2

IBM Guardium, Command Line Interface (CLI)

cli@10.142.0.2's password:
Last login: Fri Jan 20 21:12:06 2017
Welcome cli - this is your first login in this system.
Your password has expired.
Changing password for 'cli'.
Enter current password:
Enter new password:
Re-enter new password:
localhost.localdomain>
```

    c. Configure the system IP (use the private or internal ip)

```
localhost.localdomain> store network interface ip 10.142.0.2
Mar 17 00:55:02 guard-network[13916]: INFO Sanitizing Hosts
This change will take effect after the next network restart.
ok
```

    d. Configure the netmask

```
localhost.localdomain> store network interface mask 255.255.255.255
This change will take effect after the next network restart.
ok
```

    e. Configure the internal route

```
localhost.localdomain> store network route default 10.142.0.1
This change will take effect after the next network restart.
ok
```

    f. Configure the network resolver

```
localhost.localdomain> store network resolver 1 169.254.169.254
This change will take effect after restart network.
ok
```

    g. Configure the hostname

```
localhost.localdomain> store system hostname guardiumcollector
Mar 17 00:55:40 guard-network[14237]: INFO set_hostname
Mar 17 00:55:40 guard-network[14237]: INFO Host is currently localhost.localdomain
Mar 17 00:55:40 guard-network[14237]: INFO Setting hostname to guardiumcollector.yourcompany.com for ip
10.142.0.2
ok
```

h. Configure the domain

```
localhost.localdomain> store system domain guardium.google.cloud.com
Mar 17 00:55:59 guard-network[14277]: INFO set_hostname
Mar 17 00:55:59 guard-network[14277]: INFO Host is currently guardiumcollector.yourcompany.com
Mar 17 00:55:59 guard-network[14277]: INFO Setting hostname to
guardiumcollector.guardium.google.cloud.com for ip 10.142.0.2
ok
```

i. Restart network in order to apply changes

```
localhost.localdomain> restart network
Do you really want to restart network? (Yes/No)
yes
Restarting network
Shutting down interface eth0: RTNETLINK answers: No such file or directory
[ OK ]
Shutting down loopback interface: [ OK ]
Bringing up loopback interface: [ OK ]
Bringing up interface eth0:
Determining IP information for eth0... done.
[ OK ]
Network System Restarted.

In Standalone clause
firewall/iptables rebuilt.
setting solr
Changing to port 8443
From port 8443
Stopping.....
success: true

ok
localhost.localdomain>
```

Warning and Known Limitations:

The following CLI commands will not work on an appliance deployed in the Amazon Cloud due to DHCP handling limitations in the appliance:

- store network interface mtu
- show network verify
- Show network interface inventory

The following CLI command should not be run on Oracle Cloud Platform as it may result in the appliance becoming inaccessible:

- store network interface reset
- Store net interface inventory

2018-September-27