Qualys Gateway Service GCP VM

Deployment Guide

Version 1.1

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About this Deployment Guide

This deployment guide contains the information for deploying, interacting, and configuring Centralized Appliance Management Service (CAMS) QGS Appliance on GCP Cloud.

About Qualys

Qualys, Inc. (NASDAQ: QLYS) is a pioneer and leading provider of cloud-based security and compliance solutions. The Qualys Cloud Platform and its integrated apps help businesses simplify security operations and lower the cost of compliance by delivering critical security intelligence on demand and automating the full spectrum of auditing, compliance and protection for IT systems and web applications.

Founded in 1999, Qualys has established strategic partnerships with leading managed service providers and consulting organizations including Accenture, BT, Cognizant Technology Solutions, Deutsche Telekom, Fujitsu, HCL, HP Enterprise, IBM, Infosys, NTT, Optiv, SecureWorks, Tata Communications, Verizon and Wipro. The company is also founding member of the Cloud Security Alliance (CSA). For more information, please visit www.qualys.com

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Overview

The Qualys Gateway Service (QGS) is a packaged virtual appliance. QGS provides proxy services for Qualys Cloud Agent deployments that require proxy connectivity to the Qualys Cloud Platform.

This document outlines the steps required to set up a Centralized Appliance Management Service (CAMS) Qualys Gateway Service (QGS) appliance on the Google Cloud Platform (GCP).

Prerequisites

- You need a GCP account to set up CAMS QGS.

- You must install CLI on your machine to launch and execute commands on GCP CLI.

- You can get the CAMS/QGS GCP VHD image from Google Marketplace. Make sure you comply with the publisher's minimum system requirements.

Steps to Configure the CAMS Appliance

1. Launch QGS Instance from the GCP Marketplace
2. Create a GCP VM Instance
3. Add a Secondary Hard Disk to use Patch Mode
4. Access the QGS Text UI

Launch a QGS Instance from the GCP Marketplace

The first step in setting up a CAMS appliance on GCP is to launch a QGS instance from the GCP marketplace.

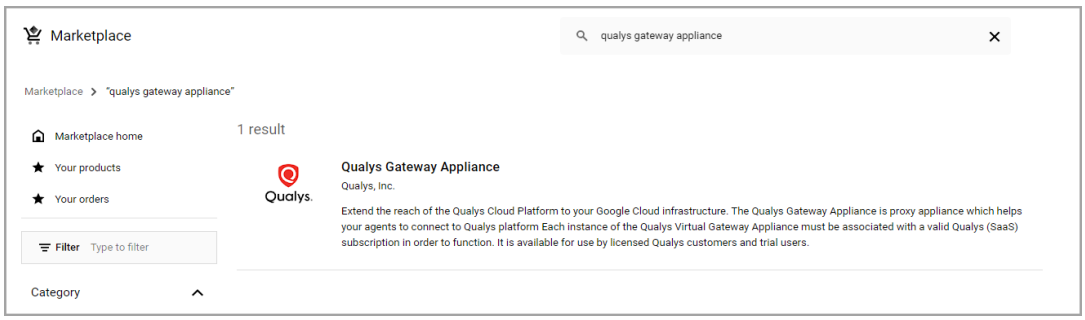
To get started, follow these steps.

1. Log in to your Google Cloud Platform account via Google Marketplace.

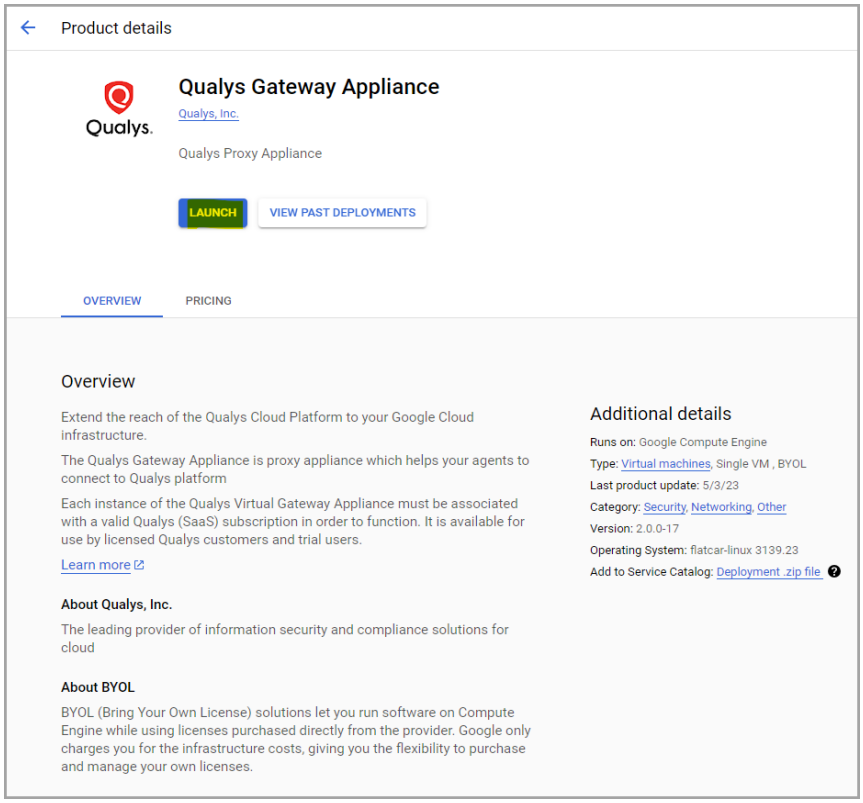
Alternatively,

a) Search for Qualys Gateway Appliance in the Marketplace search bar.

b) Select Qualys Gateway Appliance from the search results.



2. Click **Launch** to start the Qualys Gateway Appliance.



The CAMS appliance is registered on a GCP VM instance. A GCP VM deployment page appears after launching the appliance from the marketplace.

Create a GCP VM Instance

The following steps are required to create a GCP VM Instance.

1. Provide the following details on the VM deployment page.

Note: We recommend only using the values suggested in **Series**, **Machine type**, **Boot disk type**, and **Boot disk size in GB** fields for the VM Instance configuration.

- Deployment name: Provide a name for your VM Instance.

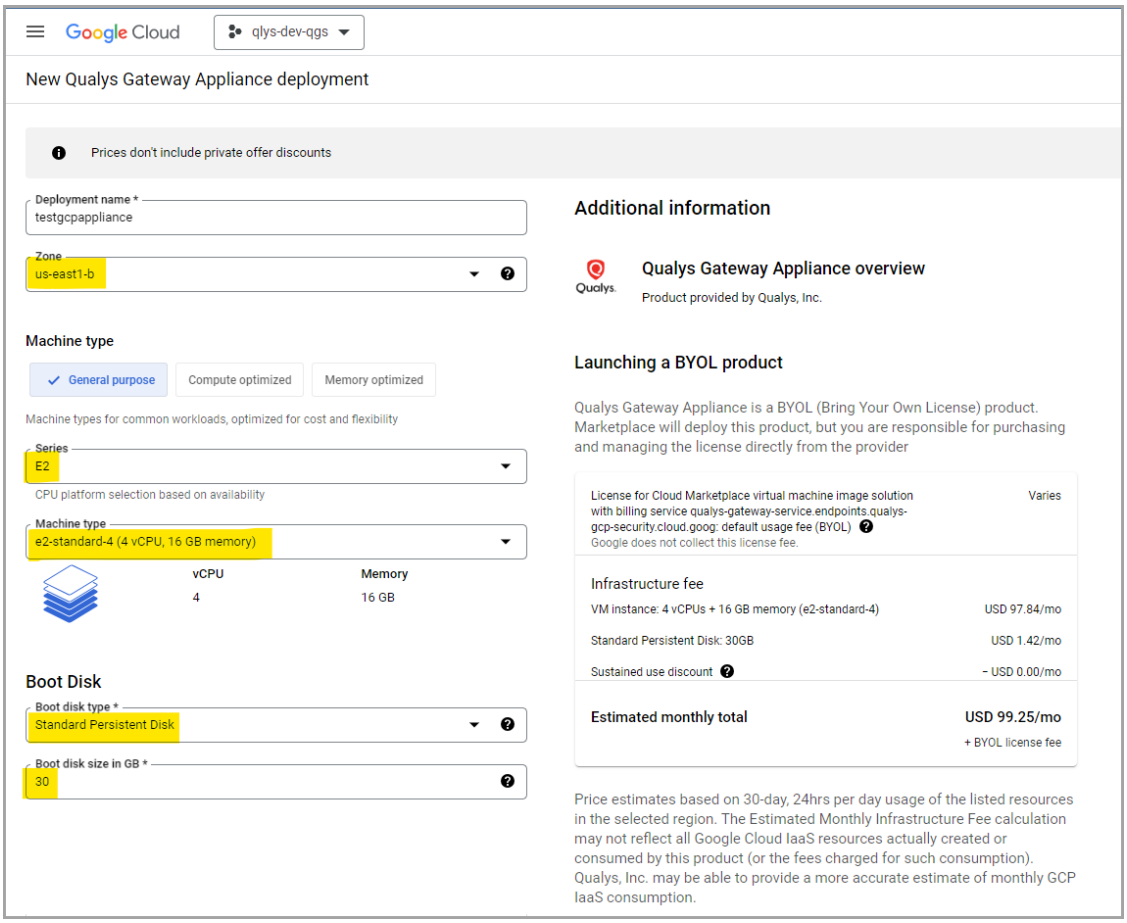
- Zone: Provide the region where the VM Instance must be created.

- Series: Provide the series as **E2**.

- Machine type: Provide machine type as **e2-standard-4 (4 vCPU, 16GB memory)**.

- Boot disk type: Provide boot disk type as **Standard Persistent Disk**.

- Boot disk size in GB: Provide disk size as **30**.



2. On the Network Interface configurations of the VM deployment page, do the following:

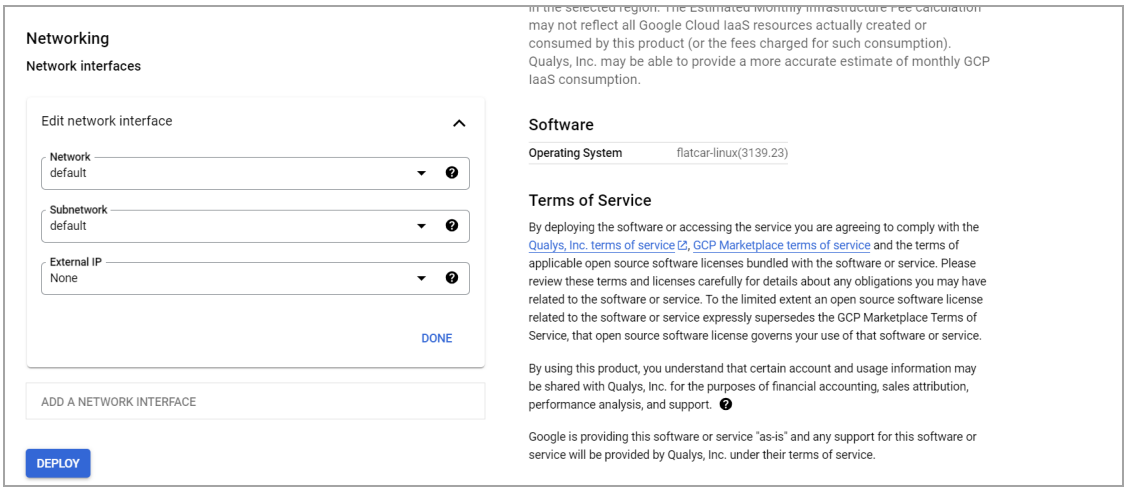
- Network: Select **Default** for Network.

- Subnetwork: Select **Default** for Subnetwork.

- External IP: Select from the default **Ephemeral** for external IP or **None** for private IP. We recommend selecting private IP for additional network security.

Tip: The Text UI requires an upstream proxy to be configured for private IP. The appliance can only reach the Qualys server if it includes the URLs listed in the *Network Configuration* section of the QGS User Guide.

3. Click **Deploy** after verifying the configurations. Wait for the VM Instance to deploy.

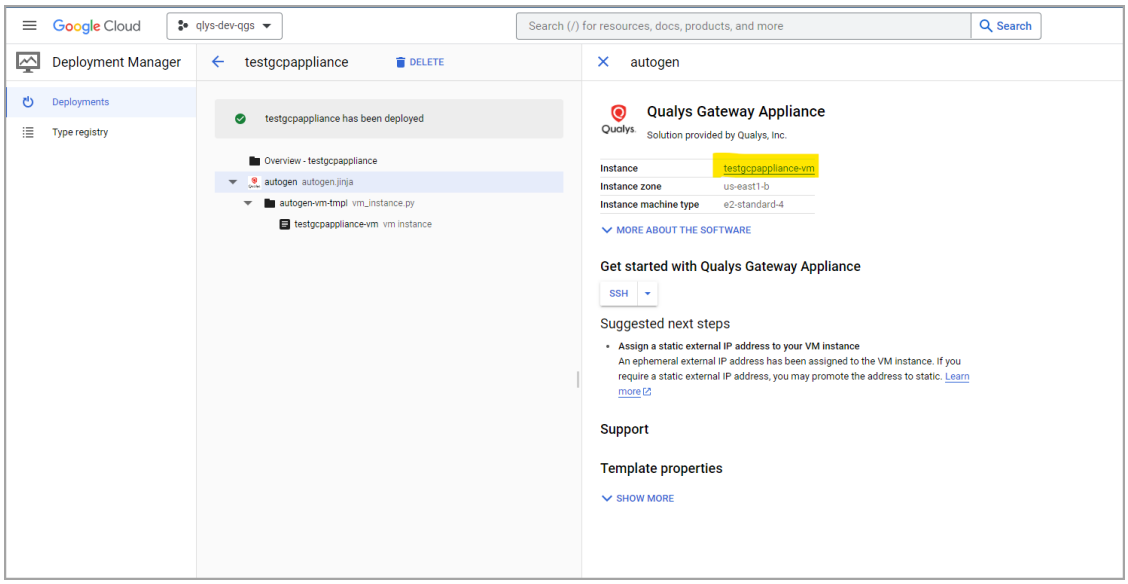


After deployment, you can see the GCP VM Instance listed on the Deployment Manager.

Add a Secondary Hard Disk to use Patch Mode

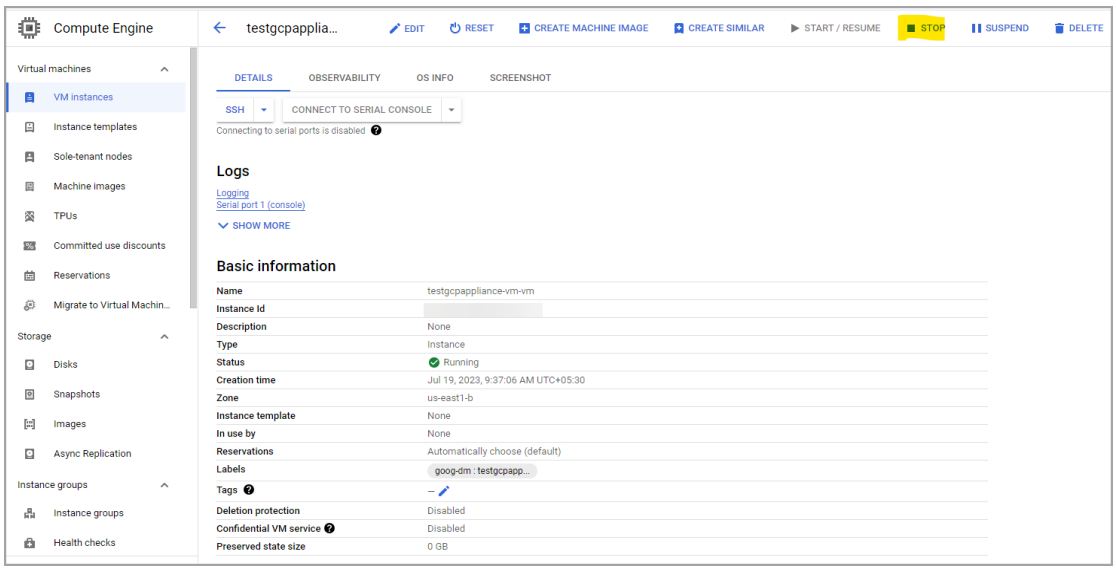
You can add a secondary disk of 250 GB to enable patch mode during or after creating the VM Instance. Ensure that the minimum VM requirement is met. For more details, see the *Virtual Machine Configuration* section of the QGS User Guide.

1. Click the newly created VM Instance to add a secondary disk.

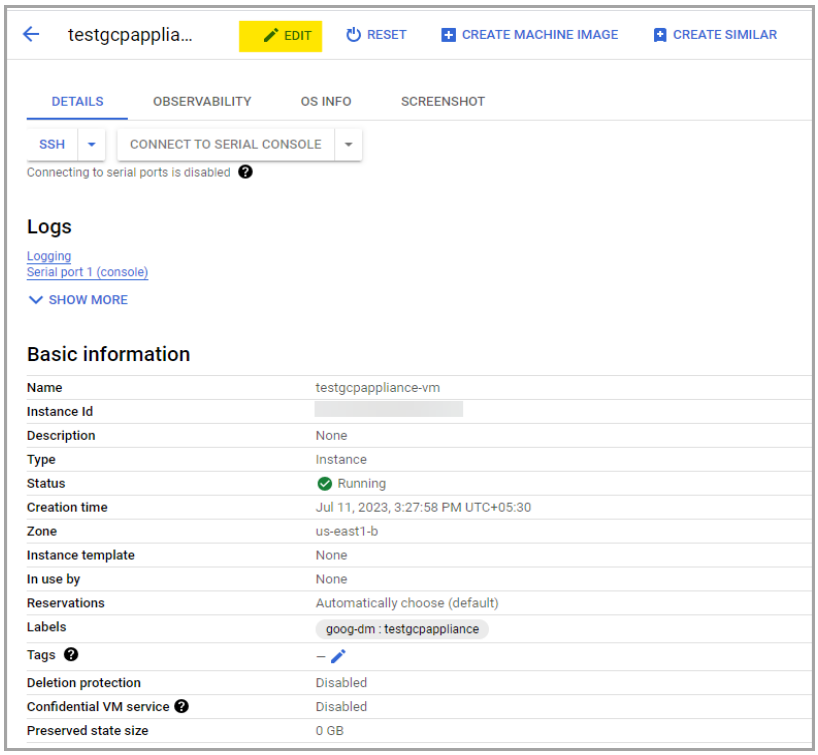


A detailed list of information on your VM Instance is displayed with edit options.

2. Click **Stop** on the VM Instance page to stop the VM instance before moving to the next steps.

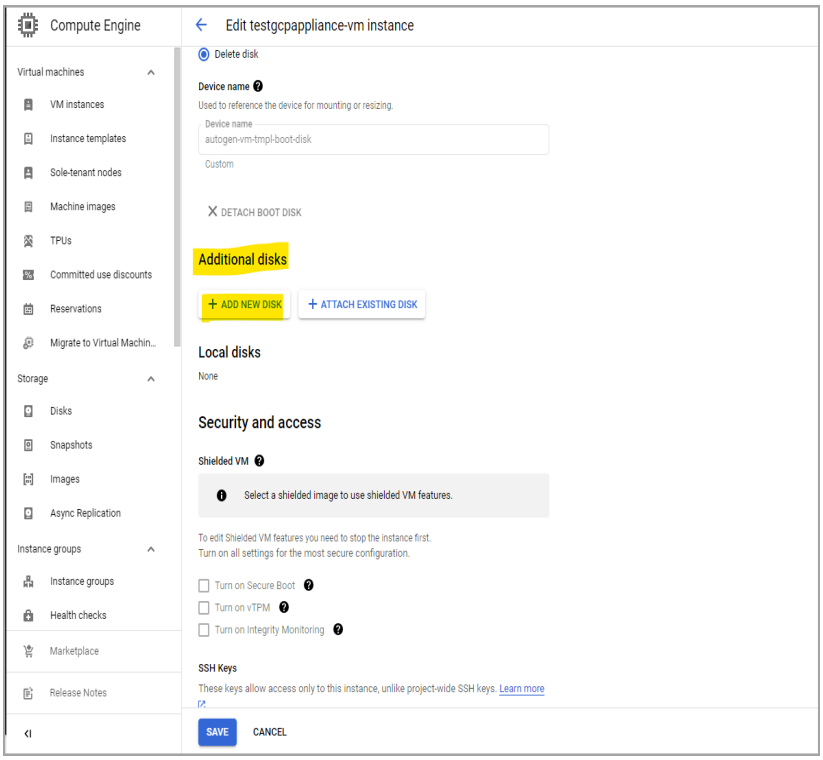


3. Click **Edit** to add a secondary hard disk to the virtual machine.



You can edit your previous configurations and add disk information on this page.

4. In the **Additional disks** section, click **Add New Disk**.



The **Add new disk** page is displayed. You can configure your secondary disk here.

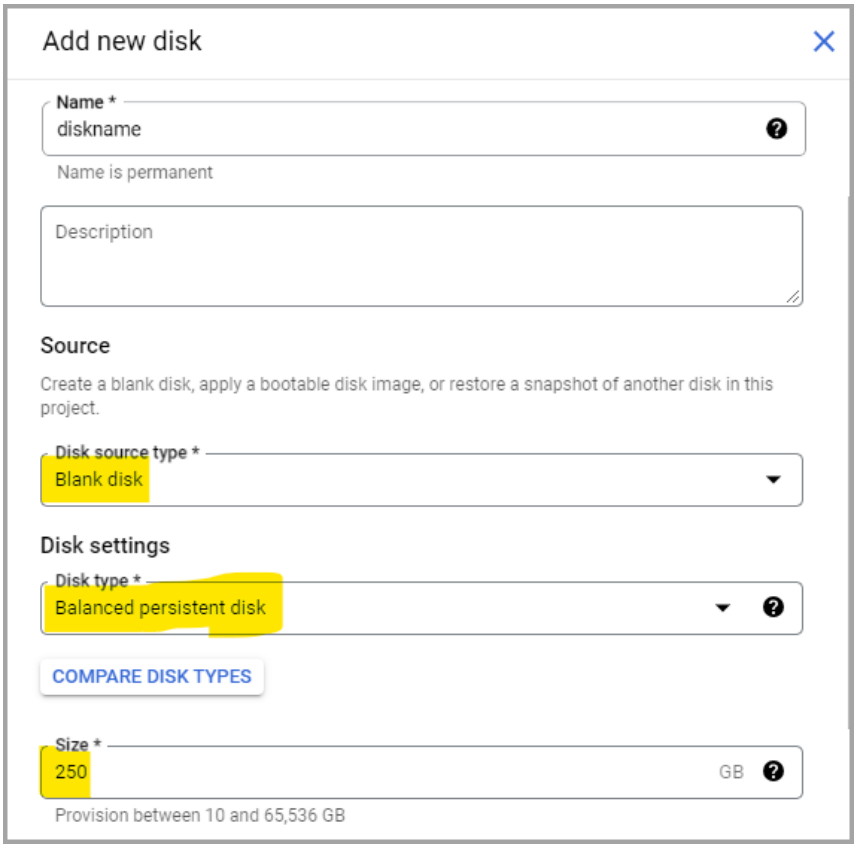
5. Do the following:

a) Enter a name.

b) Select **Disk source type** as Blank Disk.

c) Select **Disk type** as Balanced Persistent Disk.

d) Provide the disk size. The minimum size for a Patch Disk is 250 GB. The size can be increased when there is too much cache attrition.



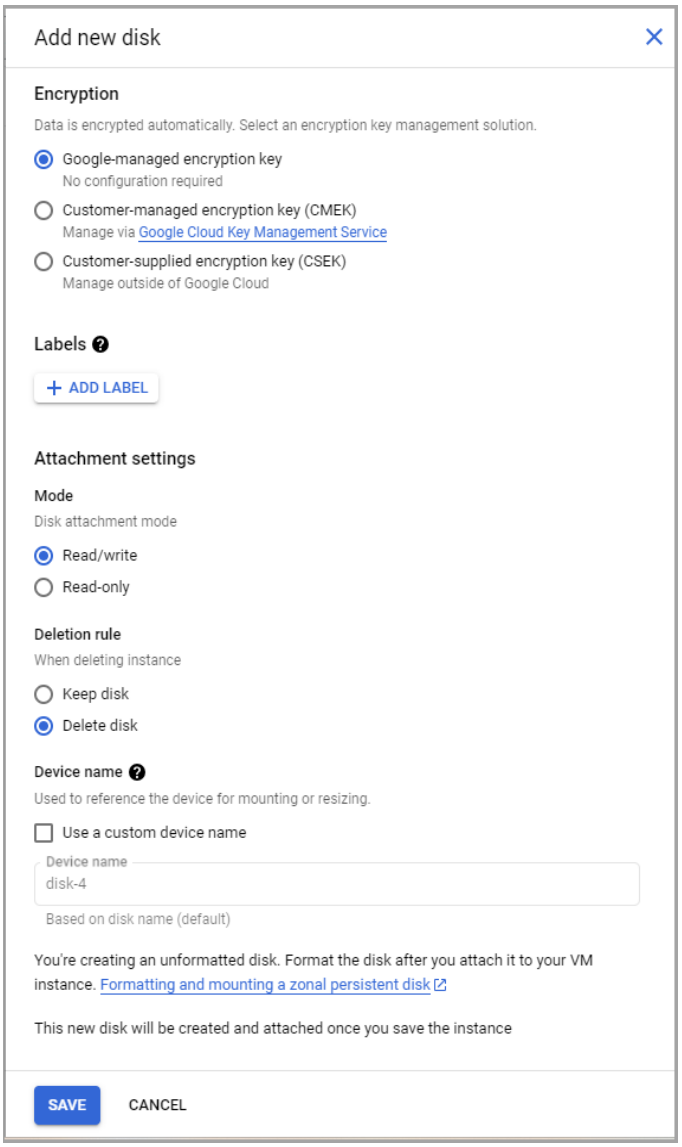
e) Keep the **Encryption Type** as Google-managed encryption key.

f) Select the **Mode** as Read/write.

g) Select the **Deletion rule** as Delete disk. The secondary disk is deleted when the VM instance is deleted.

By default, the device name is the configured disk name. If needed, you can add a custom device name.

6. Click **Save**.



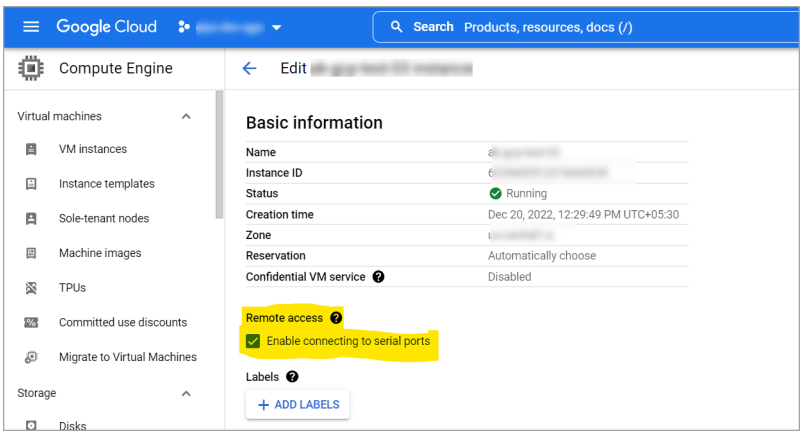
7. Click **Save** on the **Edit Instance** page and save the changes to the instance.

Access the QGS Text UI

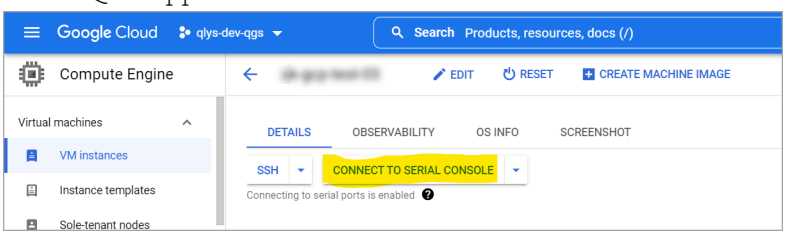
The CAMS Appliance must be registered using the QGS Text UI. To launch the Text UI, follow the steps below.

1. Select the newly created GCP VM Instance, and click **Edit**.

2. Select the **Enable connecting to serial ports** checkbox and click **Save**.



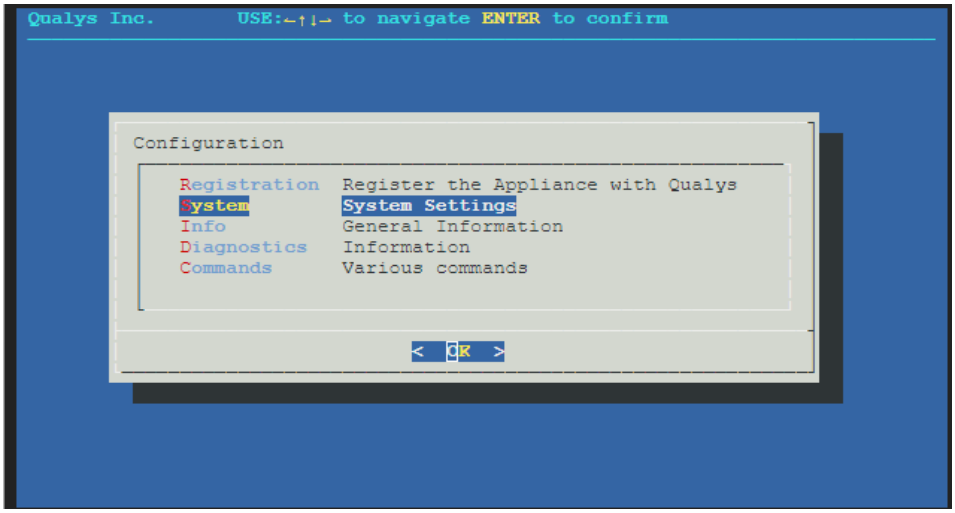
3. After saving the details, click the **Connect to Serial Console** option to access the Text UI of the QGS Appliance.



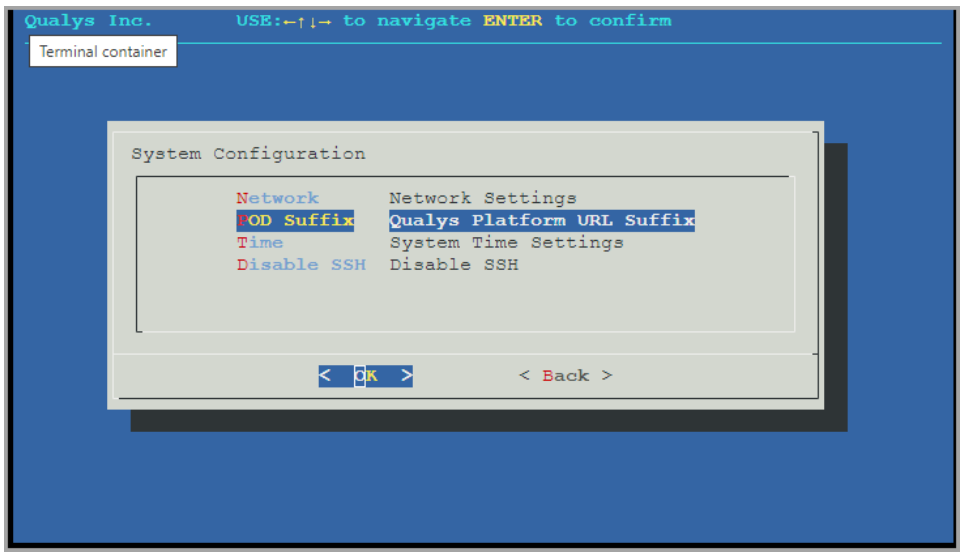
Note: Press any key if the Text UI is not displayed within 10-15 seconds.

You can view the Configuration screen once the QGS Text UI is visible.

4. Click **System** to access the System Configuration.

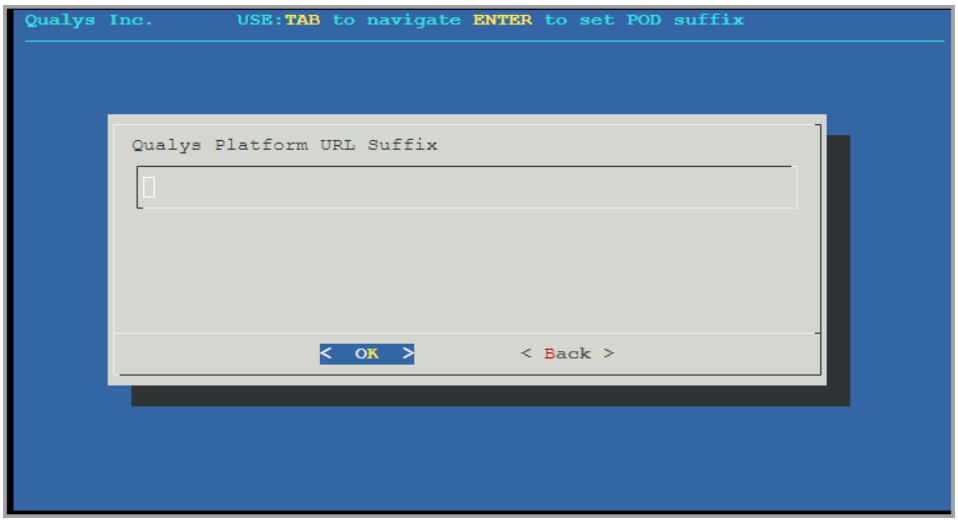


5. On **System Configuration**, click **POD Suffix**.

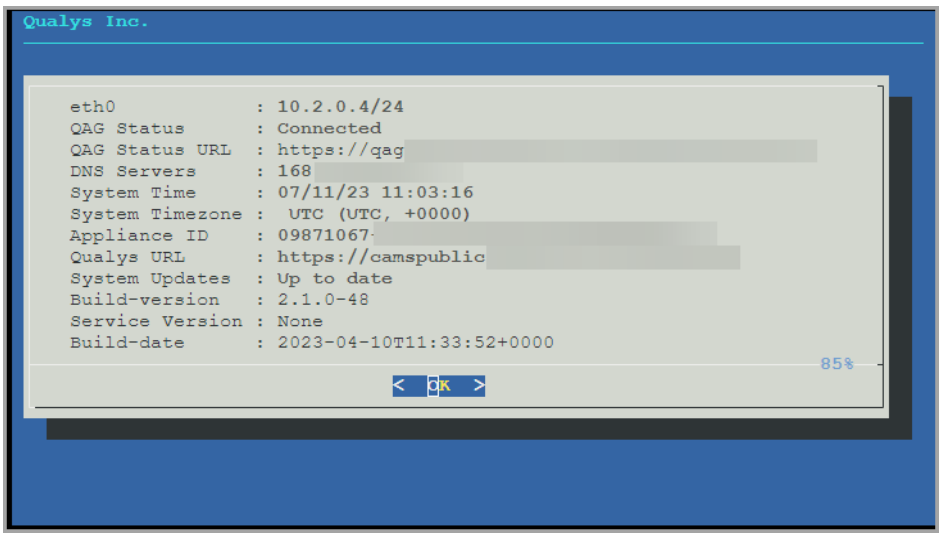


An input field is displayed to provide the Platform URL Suffix (POD Suffix).

6. Enter the Qualys Platform URL Suffix corresponding to the platform where your subscription is hosted. To identify the Platform URL Suffix for your subscription, refer to the *Platform URL Suffix* section of the Qualys Platform Identification.



Once the POD Suffix is successfully updated and network settings are configured, the appliance should display as below. Verify that the QAG Status shows Connected to ensure your appliance runs successfully.

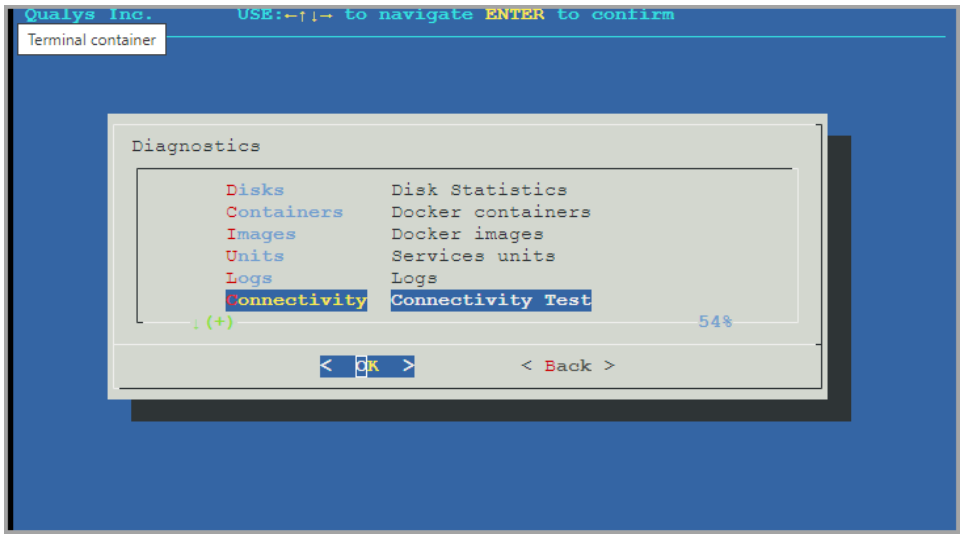


7. We recommend running a connectivity test to ensure all Qualys backend services are reachable.

To run a connectivity test, follow these steps.

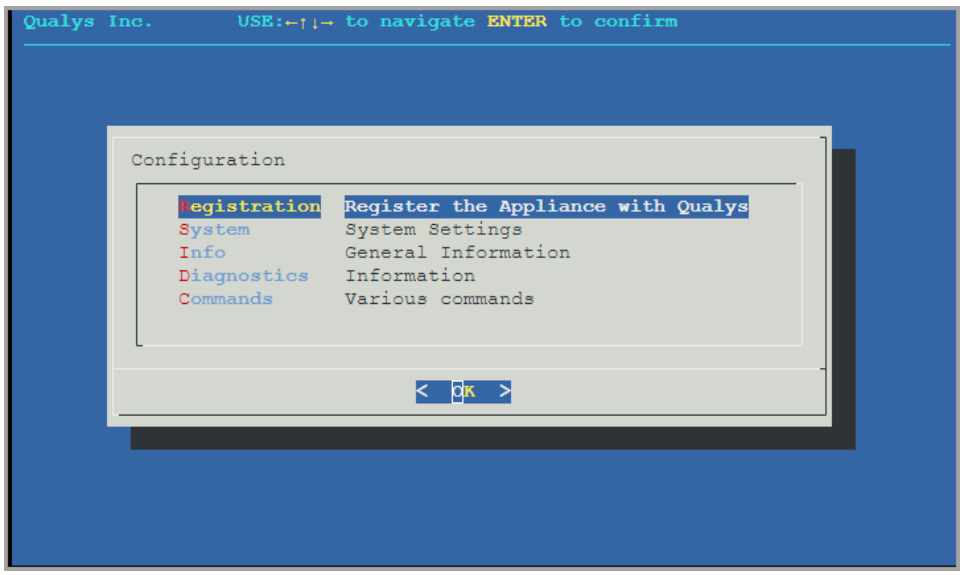
a) Navigate back to the Configuration screen.

b) Click **Diagnostics** > **Connectivity Test**.



Note: If the VM Instance is configured on a private IP network, configure your upstream proxy network before appliance registration. Refer to the *Proxy Servers* section of the Qualys User Guide.

8. Click **Registration** to register the appliance.



Follow the steps instructed in the *Registration* section of the QGS User Guide to complete the appliance registration.

Create VM Instance Using User Data

You can also configure a GCP VM Instances using the User Data setting. We recommend using the User Data option only when the VM Instance is launched using scripts.

Follow the steps below to create a VM using User Data.

1. Navigate to the **Advanced** options on the VM deployment page during the GCP VM Instance creation.

2. Click **Management**.

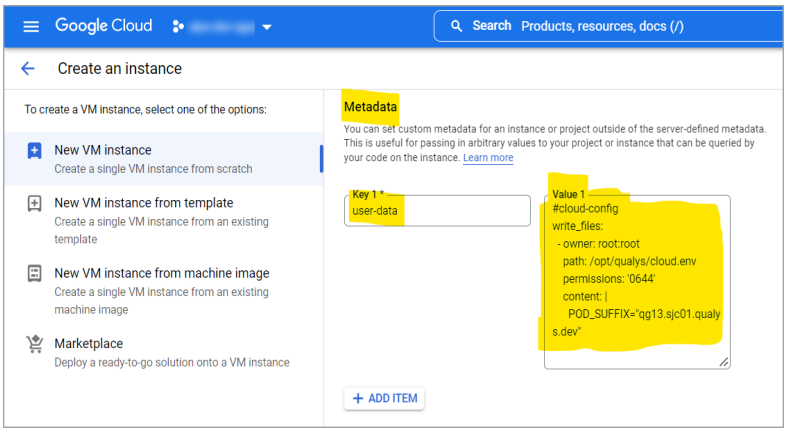
3. In Metadata, click **Add Item**.

4. Set the Key as user-data (Setting this key is mandatory).

5. Keep the other settings as default.

- Add the following user data in the value field.

```
#cloud-config
write_files:
  - owner: root:root
    path: /opt/qualys/cloud.env
    permissions: '0644'
    content: |
      POD_SUFFIX= "Add your corresponding POD suffix here"
```



The Text UI can be launched after you have created a VM using these steps. Refer to Access the QGS Text UI.