

MayaScale on Google Cloud

MayaScale utilizes instances with local NVMe devices and provides robust NVMe over Fabrics platform to clients that support NVMe/TCP. Deploy MayaScale in 2-node HA configuration if the NVMe devices are temporary storage devices to safe guard against data loss in the event of interruption.

To configure High Availability operation for Mayascale

- [Virtual IP address](#)
- [Service Account \[Optional\]](#)
- [Change default GUI password](#)
- [Connect to Mayascale Web Console](#)

Virtual IP address

To provide virtual IP address for HA operation assign suitable secondary address range to your network subnet

For example to assign virtual IP addresses in 10.9.0.0 network range to default network in the region us-west1

```
gcloud compute networks subnets update default --region us-west1 --add-secondary-ranges range1=10.9.0.0/24
```

After this virtual IP address 10.9.0.100 can be used for MayaScale HA configuration.

Service Account [Optional]

This step is optional as the MayaScale solution deployed from GCP Marketplace will already have a service account with necessary permissions. Check the service account permissions that was used to deploy Mayascale instances. Mayascale requires a [service account](#) with sufficient permissions to manipulate disk attachments for proper sharing and fencing, and also storage read-write access to object storage. It also needs sufficient permission to float the virtual IP across multiple instances. If the default service account lacks these permission a separate service account is needed for proper HA configuration

From Google cloud shell or from computer where gcloud CLI is available create a new service account as follows

1. Find the project name associated with the deployment and set it to shell variable PROJECT

```
PROJECT=$(gcloud info --format='value(config.project)')
```

If the PROJECT appears different then switch to the project name used for MayaScale deployment

```
gcloud config set project YOUR_PROJECT
```

2. Create the service account

```
SA="mayascale-service"
```

```
gcloud iam service-accounts create $SA --display-name "mayascale service account"
```

3. Find the email of the newly created service account and set it to shell variable SA_EMAIL

```
SA_EMAIL=$(gcloud iam service-accounts list --filter="displayName:mayascale service account" \
--format='value(email)')
```

The variable SA_EMAIL will be \${SA}@\${PROJECT}.iam.gserviceaccount.com

4. Add relevant permissions to the newly created service account with the role scope limited to this project only. Your other instances in different projects will not be affected by these changes.

```
# permission to create/modify instances in your project
gcloud projects add-iam-policy-binding $PROJECT --member serviceAccount:$SA_EMAIL \
--role roles/compute.instanceAdmin
```

```
# permission to create/modify network settings in your project
gcloud projects add-iam-policy-binding $PROJECT --member serviceAccount:$SA_EMAIL \
--role roles/compute.networkAdmin
```

```
# permission to create/modify images & disks in your project
gcloud projects add-iam-policy-binding $PROJECT --member serviceAccount:$SA_EMAIL \
--role roles/compute.storageAdmin
```

Update Mayascale instances with the newly created service account. The instances have to be stopped to attach service account to instance but these instances with local SSDs cannot be stopped from the Google Cloud Web Console. To overcome this ssh to instances and issue poweroff and wait for instances to STOP. After this to use shell to run

```
gcloud compute instances set-service-account YOUR_INSTANCE --zone us-west1-b --service-account=$SA_EMAIL
```

Change default GUI password

Change the MayaScale Administration GUI default password to something random by running

```
# /opt/mayastor/web/genrandpass.sh
```

Or to set your own password

```
# /opt/mayastor/web/changepass.sh
Login name (default admin):
Login password:
Password again:
```

And then restart the web server for password changes to take effect

```
# /opt/mayastor/web/stop
# /opt/mayastor/web/start
```

Connect to Mayascale Web Console

Now you can proceed with High-Availability setup using the **Getting Started** wizard from Administration Web console available on <http://<mayascale1-ip>:2020>



MAYASCALE STORAGE SERVER

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The screenshot shows the MayaScale Administration Web Console. On the left is a navigation sidebar with two sections: 'MayaScale Storage Server' and 'MayaScale Server Wizards'. The main area is titled 'My Server' and contains a 'MayaScale Getting Started' wizard. The wizard has a green header and a white body. It says 'Welcome to MayaScale' and includes the Azure logo. Below the logo, it states: 'This wizard helps you configure MayaScale for the first time.' A box with a rocket icon contains the text: 'Before MayaScale can be properly configured, your storage devices must be physically attached and correctly configured as specified by the device and operating system vendor.' At the bottom, it says 'To begin MayaScale configuration, click Next.' and has 'Next' and 'Cancel' buttons.



To avoid public network exposure of port 2020 it is recommended to use ssh tunneling with port forwarding as follows

```
gcloud compute ssh --zone YOUR_ZONE mayascale1" --project YOUR_PROJECT -L 2020:localhost:2020
```

Then access web console as <http://localhost:2020>

Next proceed to [Configure MayaScale](#)