

How to Check Usage of GKE Disk

The following guide will demonstrate how to check how much disk space is available for a given persistent disk used by the GKE cluster.

Basically, what we have to do is SSH into the node that the disk is attached to and then check the disk usage from the command line. Why is the usage not provided in the GCP UI or in any of the monitoring? Not sure, but it seems like bad design on Google's part.

Process:

- i. Enable SSH access to the nodes:
 - In the Firewalls config, find the rule that looks like `gke-ufincs-cluster-XXX-ssh`.
 - Modify it so that the Source filters or Source IP ranges includes `0.0.0.0/0` (aka, allow everyone to connect over SSH).
- ii. SSH in.
 - Can do this with `gcloud compute ssh INSTANCE` or by going to the Compute Instances page and SSH'ing in through the UI.
- iii. Once in, run `lsblk` to find the block device for each persistent disk. These will be denoted as attached GKE disks because their mountpoint will include `kubernetes` in the path.
- iv. Run `sudo df -h /dev/XXX`, where XXX is the name of the block device (e.g. `sdb`).
- v. It will show available disk space.

After this, don't forget to remove the `0.0.0.0/0` IP range from the Firewall rule, for security reasons.