

From my answer below, my goal is to:

1. Show how I process a requirement and deliver an architecture.  
there are a lot of things that I wish to clarify on this requirements. but since it's not a live test, I had to make some assumptions on the requirement how the question wants to be answered
2. convey my current level of understanding on gcp.  
I worked with a small subset on other cloud services, enough to understand the basics. The answers I gave are a combination of my limited experience on cloud services and troubleshooting (gcp documentation, google, stackoverflow)

1. Tambahkan 1 node baru di GCP untuk menampung log

- a. untuk membuat node baru untuk store logs, pertama kita buat bucket baru dengan hak autentikasi baru.
  - i. creation of this bucket could be done manually (from GCP console or GCP CLI) and doesn't need to be automated (because it's most likely a one time procedure, as the whole organization may share the same logging infrastructure).



mnctest-all-logs-bucket

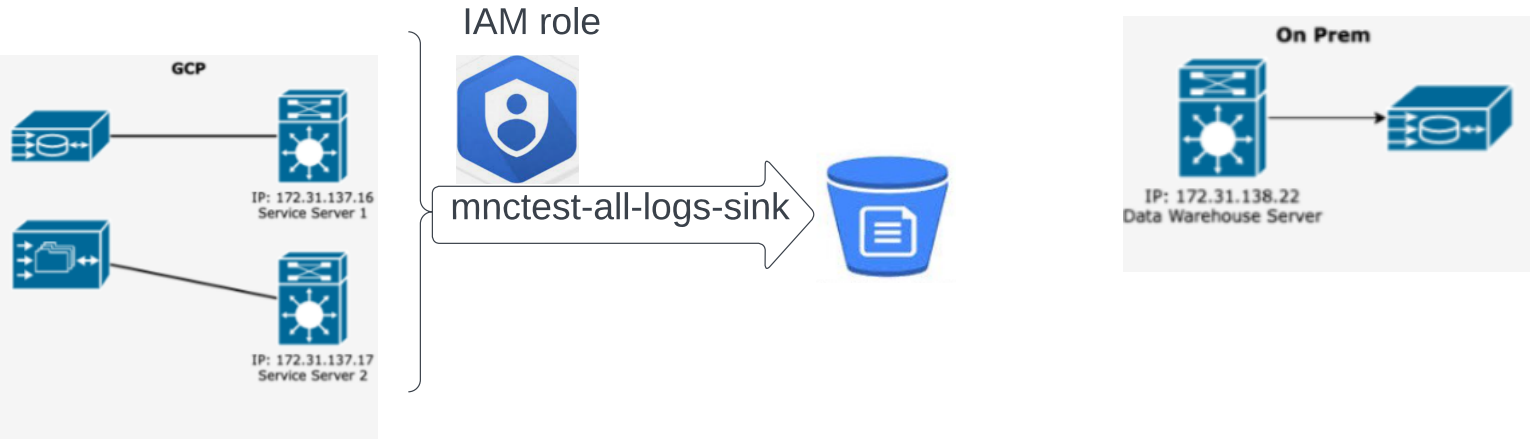
```
onewithathousandzero@cloudshell:~ (stoked-reality-362707)$ gcloud logging buckets create mnctest-all-logs-bucket \
--location=asia-southeast2 \
--project=mnctest-all-logs-project
```

- b. buat funnel (mnctest-all-logs-sink) utk mengagregasi traffic logs dari system yang sudah ada kearah bucket yang baru dibuat



- c. buat IAM role baru, unik untuk sink supaya bisa menwrite ke bucket.
  - i. create IAM role, (WriteSink)
  - ii. create IAM policy, yang spesifik membolehkan pemilik untuk mengakses mnctest-all-logs-bucket (AllowWriteBucket)
  - iii. assign IAM policy AllowWriteBucket ke IAM role WriteSink
  - iv. assign IAM role WriteSink ke mnctest-all-logs-sink. sekarang hanya mnctest-all-logs-sink yang punya akses untuk menulis ke mnctest-all-logs-bucket

d. hasil infrastruktur setelah 1 node logging tambahan



2. Rancanglah Infrastruktur agar node yang baru dibuat di point 1, bisa terhubung ke Data Warehouse server tanpa ter-expose ke Internet

- a. Menghubungkan Data Warehouse Server ke mnctest-all-logs-bucket tanpa ter-expose ke internet solusinya dengan beberapa step
  - i. Buat VPC utk GCP dan subsistemnya, jika belum ada VPC. mnctest-all-logs-bucket akan dipindahkan kedalam VPC yang sama.
  - ii. Buat Google Cloud VPN utk koneksi antara on-prem dan VPC tersebut.
  - iii. Buat VPN gateway masing-masing utk VPC dan on-prem. reserve an IP address for the VPN connection

