GCP Cloud Servers

SERVER A

Private Service

Private Service

Public Server Proxy

Public Service

Private Server Proxy

Private Service

Public Service

Private Service

SERVER B

Private Service

Private Service Accesing Another Server

Public Server Proxy

Public Service

Private Server Proxy

Private Service

Public Service

Private Service

Primary Public API Gateway

Concept

All requests from public come in through the API gateway (or at the moment just the primary server proxy, as there is no api gateway yet). This primary access point is a proxy for publicly accessible services - e.g. a traefik container that contains declarations for some public facing websites etc...

In order for these public facing websites to work, they may need to communicate with private (hidden) api's - this should be done via a private proxy, which is accessed only via a network. These hidden api's/services may also need to communicate with each other, which again should be done via the private proxy.

This allows us to capture/log all network communication between services (assuming traefik is being used) via access logs. This can then be used to visualise a realtime display of communication between microservices, perhaps having visual identifiers for bad requests, or high network load etc...

In the case where a service needs to access a service on another server, it can access it via the private server proxy through it's server's internal IP address on the GCP cloud network.