

How to Create a Second GKE Cluster

See [this commit](#).

tl;dr

- Need a new subnet on the primary network (can't re-use the same one that the primary cluster uses; otherwise creation of the secondary cluster will take 30 minutes to timeout before Google says that the same subnet can't be used).
- Copy/paste the config for the primary cluster, just changing the name and subnet and whatnot.
- Create another static IP address and add it to the DNS records.
- Make sure to use this new static IP when deploying the `nginx-ingress-controller` so that the load balancer gets provisioned for the right IP.

In terms of deploying the services to the new cluster, I only tested deploying things manually (since Kubails is tied to using only the primary cluster for its commands).

- Basically, need to deploy the static manifests (in the same order that Kubails does).
 - Don't forget that we need to deploy `cert-manager` once to get the webhook service up, and then again once the webhook service is running.
- Then we need to get the images created and stored on GCP for whatever code we'll be deploying. If we're just re-using images from a previous branch (e.g.) master, nothing to do. Otherwise, if we're on a new branch, just push it so that it gets deployed to the primary cluster and the images get created.
- Finally, just generate the service manifests manually using `kubails cluster manifests generate --namespace "${BRANCH_NAME}" --tag "${COMMIT_ID}"`.
- Then deploy the manifests with `kubectl apply --recursive -f manifests/generated`.

There, now we should have a secondary GKE cluster for testing things like newer GKE versions. Note that, obviously, things won't be fully functional until the TLS cert gets created, which will take however long the TTL on the DNS records (6 hours?). So yeah, not a short process, but it never is.