Architecture flow infrastructure

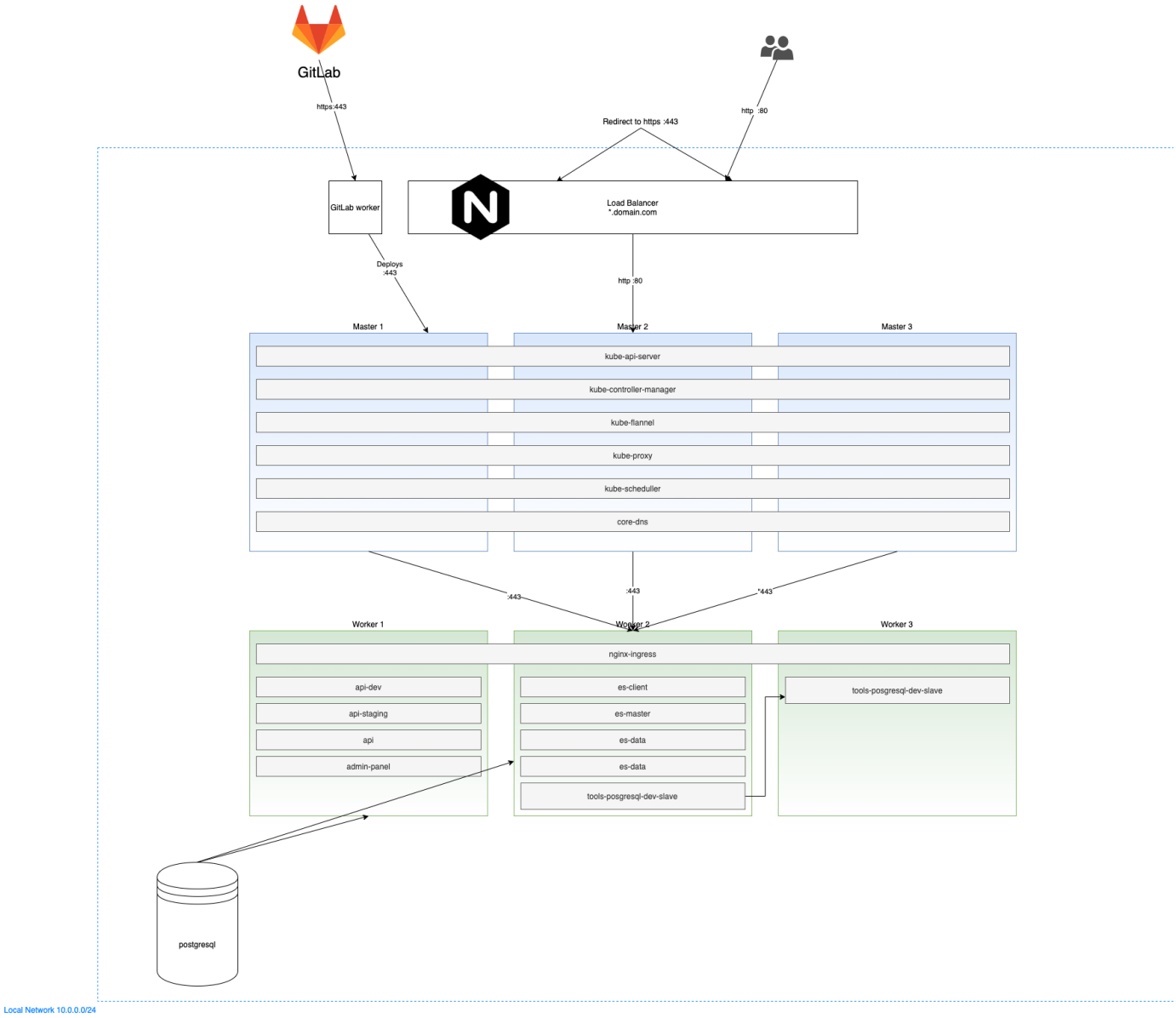
Infrastructure setup:
Cost effective: Hetzner Cloud (Rancher + CEPH + gitlab-worker + LB + NGINX + pgsql) + S3 Bucket (for snapshot storing of DB, Rancher)
Most stable: GCP or AWS (same stack)

Main goal of this diagram is to show to you how the application must be built in the core of its infrastructure.

All deployments will be pushed from Gitlab by https (secured) proto on:443 port. To prevent exceeding of GitLab limits - I proposing to use separate GitLab worker for building and pushing projects. It's much cheaper and much faster.
All deploys are making to Master1 node and scaling to Master 2 and Master 3 nodes
Master1 - us unavailable node for world traffic, but it can open automatically 80 port to pass traffic through itself.
Master2 and Master3 are the full copy of Master1

All Master nodes are connected to Worker pods via:443 port. Then it redirecting all traffic by NGINX Ingress annotations (virtual private domain names) to the services. It contains existing images of all deployments that have been done to the project (dev, stage, prod)

At the bottom of the 1st diagram, you can see the Storage service. Due to bad practices to push DB in k8s cluster (it can take all resources to re-index its own index) I decide to move it to separate service.



This diagram is to show us the full flow of how the user is reaching different services.
The user connects by HTTP (or https) proto to Load Balancer (NGINX), it has its own rules of redirection - it redirects user internally by 443 https. Load Balancer will redirect us by internal:80 port to Ingress pod. We will access to internal services by:80 port. The deployment will be done through:3000 port and once deployment will be done on one pod - it will scale to other pods so service will have 0 downtimes.