

# Lingany kubernetes

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## Configuration

Initialize new cluster:

```
sudo kubeadm init --pod-network-cidr=192.168.0.0/16 --apiserver-cert-extra-sans=lingany.com
```

Copy config:

```
rm -rf $HOME/.kube

mkdir -p $HOME/.kube
sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
sudo chown $(id -u):$(id -g) $HOME/.kube/config
```

Apply pod network:

```
kubectl apply -f rbac-kdd.yaml
kubectl apply -f calico.yaml
```

Enable taint node

If we have only one node

```
kubectl taint nodes --all node-role.kubernetes.io/master-
```

## Gitlab integration

Grant permissions for gitlab account

create `gitlab-service-account.yaml`:

```
apiVersion: v1
kind: ServiceAccount
metadata:
  name: gitlab
  namespace: default
```

create `gitlab-cluster-role.yaml`:

```
kind: ClusterRoleBinding
apiVersion: rbac.authorization.k8s.io/v1
metadata:
  name: gitlab-cluster-admin
subjects:
- kind: ServiceAccount
  name: gitlab
  namespace: default
roleRef:
  kind: ClusterRole
  name: cluster-admin
  apiGroup: rbac.authorization.k8s.io
```

Allow gitlab access:

```
kubectl create -f gitlab-service-account.yaml
kubectl create -f gitlab-cluster-role.yaml
```

Get token and certificate

```
kubectl get secrets
```

```
kubectl get secret <secret name> -o jsonpath="{['data']['token']}" |
base64 --decode
```

```
kubectl get secret <secret name> -o jsonpath="{['data']['ca.crt']}" |
base64 --decode
```

Install helm

Install ingress

Install baremetal LB

```
kubectl apply -f
https://raw.githubusercontent.com/google/metallb/v0.7.3/manifests/metallb.
yaml
```

```
kubectl apply -f configmap.yaml
```