

Deploying a Cluster

Single-Node (Local Development) Cluster

Provided in the source code for NDS Labs is a script called [kube-up.sh](#) which will launch a local kubernetes cluster on your machine.

It will also download kubectl for you, as described above, and place it into the `~/bin/` folder.

```
#!/bin/sh
docker run \
  --volume=:/rootfs:ro \
  --volume=/sys:/sys:ro \
  --volume=/var/lib/docker:/var/lib/docker:rw \
  --volume=/var/lib/kubelet:/var/lib/kubelet:rw \
  --volume=/var/run:/var/run:rw \
  --volume=`pwd`/manifests/etcd.json:/etc/kubernetes/manifests/etcd.json \
  --net=host \
  --pid=host \
  --privileged=true \
  -d \
  gcr.io/google_containers/hyperkube-amd64:v{K8S_VERSION} \
  /hyperkube kubelet \
    --containerized \
    --hostname-override="127.0.0.1" \
    --address="0.0.0.0" \
    --api-servers=http://localhost:8080 \
    --config=/etc/kubernetes/manifests \
    --allow-privileged=true --v=2
mkdir -p ~/bin
if [ ! -e ~/bin/kubectl ]; then
  curl -L https://storage.googleapis.com/kubernetes-release/release/${K8S_VERSION}/bin/linux/amd64/kubectl -o
  ~/bin/kubectl
  chmod +x ~/bin/kubectl
fi
```

NOTE: The first time you start your cluster, Kubernetes will tell docker to download several images.

This happens in the background and can take several minutes, so please be patient.

Deploying a Multi-Node (Production) Cluster

OpenStack (Nebula)

More information is needed on what would be involved in this process