

MiniKube Install on Linux VM

MiniKube is primarily a DevOps tool for Developing, Checking or Validating YAML files and many Charts.

NB: This install is for any Linux machine. Done on standard Ubuntu 20.04

MiniKube is a very good test/play environment where we can test scripts against.
This is how to install it on Ubuntu 20.04 .

1. Update & Upgrade

```
sudo apt update  
sudo apt upgrade
```

2. Ensure base tools installed

```
sudo apt-get install curl  
sudo apt-get install apt-transport-https
```

3. MiniKube runs in VirtualBox - Install It

```
sudo apt install virtualbox virtualbox-ext-pack
```

4. Download MiniKube Binary

```
sudo wget https://storage.googleapis.com/minikube/releases/latest  
/minikube-linux-amd64
```

It is saved in the directory you are working in.

5. Copy to local binary location: (/usr/local/bin/minikube)

```
sudo cp minikube-linux-amd64 /usr/local/bin/minikube  
rm -rf minikube-linux-amd64
```

6. Grant MiniKube the correct permissions

```
sudo chmod 755 /usr/local/bin/minikube
```

7. Verify permissions

```
sudo chmod 755 /usr/local/bin/minikube
ls -lah /usr/local/bin/minikube
==> -rwxr-xr-x 1 root root 66M Nov  3 07:26 /usr/local/bin/minikube
```

8. Check Version

```
minikube version
==>minikube version: v1.23.2
==>commit: 0a0ad764652082477c00d51d2475284b5d39ceed
```

9. Get kubectl from Google, Assign permissions, Check & move to bin.

```
cd ~/
curl -LO https://storage.googleapis.com/kubernetes-release/release
/'curl -s https://storage.googleapis.com/kubernetes-release/release
/stable.txt'/bin/linux/amd64/kubectl
sudo chmod +x kubectl
ls -lah
==>....-rwxr-xr-x 1 root root 1.6K Jun 30 11:28 kubectl
sudo mv kubectl /usr/local/bin/kubectl
ls -lah /usr/local/bin/
==>-rwxr-xr-x 1 philipw@4cgroup.co.za domain users@4cgroup.co.za 1.6K
Nov  3 07:30 kubectl
```

10. Verify that kubectl is executable

```
kubectl version -o json
```

Startup MiniKube

```
minikube start
```

Follow output - ensure no error messages..
(It visualises and installs k8s for use)

OUTPUT as in this..

```
wayne@wayneHP:~/dev/4cg/development-cluster$ minikube start
🐶 minikube v1.21.0 on Ubuntu 20.04
🌟 Automatically selected the virtualbox driver. Other choices: ssh, none
📀 Downloading VM boot image ...
> minikube-v1.21.0.iso.sha256: 65 B / 65 B [-----] 100.00% ? p/s 0s
> minikube-v1.21.0.iso: 243.03 MiB / 243.03 MiB [ 100.00% 3.91 MiB p/s 1m2s
👍 Starting control plane node minikube in cluster minikube
💾 Downloading Kubernetes v1.20.7 preload ...
> preloaded-images-k8s-v11-v1...: 492.20 MiB / 492.20 MiB 100.00% 3.05 MiB
🔥 Creating virtualbox VM (CPUs=2, Memory=3900MB, Disk=20000MB) ...
🐳 Preparing Kubernetes v1.20.7 on Docker 20.10.6 ...
  ▪ Generating certificates and keys ...
  ▪ Booting up control plane ...
  ▪ Configuring RBAC rules ...
🔍 Verifying Kubernetes components...
  ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
🌟 Enabled addons: storage-provisioner, default-storageclass
🏁 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
```