

Now that Docker is installed, we are ready to install the Kubernetes components. In this lesson, I will guide you through the process of installing Kubeadm, Kubelet, and Kubectl on all three playground servers. After completing this lesson, you should be ready for the next step, which is to bootstrap the cluster.

Here are the commands used to install the Kubernetes components in this lesson. Run these on all three servers.

NOTE: There are some issues being reported when installing version 1.12.2-00 from the Kubernetes ubuntu repositories. You can work around this by using version 1.15.7-00 for kubelet, kubeadm, and kubectl.

```
curl -s https://packages.cloud.google.com/apt/doc/apt-key.gpg | sudo apt-key add -

cat << EOF | sudo tee /etc/apt/sources.list.d/kubernetes.list
deb https://apt.kubernetes.io/ kubernetes-xenial main
EOF

sudo apt-get update

sudo apt-get install -y kubelet=1.15.7-00 kubeadm=1.15.7-00 kubectl=1.15.7-00

sudo apt-mark hold kubelet kubeadm kubectl
```

After installing these components, verify that Kubeadm is working by getting the version info.

```
kubeadm version
```

Later versions disable swap:

<https://github.com/kubernetes/kubernetes/blob/master/CHANGELOG/CHANGELOG-1.8.md#before-upgrading>