# TEKTON

## 간단한 설치 가이드

9/13/2023

# 쿠버네티스 설치

# 가상머신 설치

powershell> **Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-Hyper-V -All**

powershell> **mkdir \VMs**

powershell> **mkdir \VMdata**

powershell> **New-VM -Name master -MemoryStartupBytes 4GB -BootDevice VHD -NewVHDPath .\VMs\master.vhdx -Path .\VMData -NewVHDSizeBytes 12GB -Generation 2 -Switch External**

powershell> **Add-VMDvdDrive -VMName master -Path rockylinux.iso**

powershell> **SET-VMProcessor –VMName master -count 2**

powershell> **New-VMSwitch -name InternalSwitch -SwitchType Internal**

powershell> **ADD-VMNetworkAdapter –VMName master –Switchname Internal**

# 쿠버네티스 설치

master/node]# **cat <<EOF> /etc/hosts**

192.168.90.250 master.example.com master

192.168.90.110 node.example.com node

**EOF**

master/node]# **cat <<EOF> /etc/modules-load.d/k8s-modules.conf**

br_netfilter

overlay

**EOF**

# 쿠버네티스 설치

master/node]# **modprobe br_netfilter**

master/node]# **modprobe overlay**

master/node]# **lsmod | grep -e br_netfilter -e overlay**

master/node]# **cat <<EOF> /etc/sysctl.d/99-k8s.conf**

net.bridge.bridge-nf-call-iptables  = 1

net.ipv4.ip_forward                 = 1

net.bridge.bridge-nf-call-ip6tables = 1

**EOF**

# 쿠버네티스 설치

master/node]# **sysctl --system**

master/node]# **cat <<EOF> /etc/yum.repos.d/kubernetes.repo**

[kubernetes]

name=Kubernetes

baseurl=https://pkgs.k8s.io/core:/stable:/v1.26/rpm/

enabled=1

gpgcheck=1

gpgkey=https://pkgs.k8s.io/core:/stable:/v1.26/rpm/repodata/repomd.xml.key

exclude=kubelet kubeadm kubectl cri-tools kubernetes-cni

**EOF**

# 쿠버네티스 설치

master/node]# **dnf search --disableexcludes=kubernetes kubectl**

master]# **dnf install kubeadm kubelet kubectl -y --disableexcludes=kubernetes**

node]# **dnf install kubeadm kubelet -y --disableexcludes=kubernete**

# 런타임 설치

master/node]# **cat <<EOF> /etc/yum.repos.d/libcontainer.repo**

[devel_kubic_libcontainers_stable]

name=devel_kubic_libcontainers_stable

type=rpm-md

baseurl=https://download.opensuse.org/repositories/devel:/kubic:/libcontainers:/stable/CentOS_9_Stream/

gpgcheck=1

gpgkey=https://download.opensuse.org/repositories/devel:/kubic:/libcontainers:/stable/CentOS_9_Stream/repodata/repomd.xml.key

enabled=1

**EOF**

# 런타임 설치

master/node]# **cat <<EOF> /etc/yum.repos.d/crio_stable.repo**

[crio]

name=cri-o for derivatives RHEL

type=rpm-md

baseurl=https://download.opensuse.org/repositories/devel:/kubic:/libcontainers:/stable:/cri-o:/1.24:/1.24.6/CentOS_8/

gpgcheck=1

gpgkey=https://download.opensuse.org/repositories/devel:/kubic:/libcontainers:/stable:/cri-o:/1.24:/1.24.6/CentOS_8/repodata/repomd.xml.key

enabled=1

**EOF**

# 런타임 설치

master]# **dnf repolist**

master]# **dnf search crio cri-o**

master/node]# **dnf install cri-o -y**

master/node]# **systemctl enable --now crio**

master/node]# **systemctl is-active crio**

> active

# 쿠버네티스 초기화

master/node]# **curl -o /etc/containers/policy.json https://raw.githubusercontent.com/tangt64/training_memos/main/opensource/kubernetes-101/files/policy.json**

master]# **kubeadm init --apiserver-advertise-address=192.168.90.250 **

**--pod-network-cidr=192.168.0.0/16 **

**--service-cidr=10.90.0.0/16**

node]# **kubeadm join 192.168.90.250:6443 --token kzu7ci.jylu1yzdcwt85c20 **

**--discovery-token-ca-cert-hash **

**sha256:15a5b5e9c5463ca9c359ec96c8677ddd62615fe3afcf986e4b6703e6cbcdef0b**

master]# **systemctl enable --now kubelet**

# 쿠버네티스 초기화

node]# **kubeadm join 192.168.90.250:6443 --token kzu7ci.jylu1yzdcwt85c20 **

**--discovery-token-ca-cert-hash **

**sha256:15a5b5e9c5463ca9c359ec96c8677ddd62615fe3afcf986e4b6703e6cbcdef0b**

master]# **export KUBECONFIG=/etc/kubernetes/admin.conf**

master]# **kubectl get pods -A**

master]# **kubectl get nodes**

master]# **kubeadm token create --print-join-command**

> kubeadm join 192.168.90.250:6443 --token 7tot4i.ry9xoeeum6ffw6yu --discovery-token-ca-cert-hash sha256:15a5b5e9c5463ca9c359ec96c8677ddd62615fe3afcf986e4b6703e6cbcdef0b

# 네트워크

master]# **kubectl create -f https://raw.githubusercontent.com/projectcalico/calico/v3.26.1/manifests/tigera-operator.yaml**

master]# **wget https://raw.githubusercontent.com/tangt64/duststack-k8s-auto/master/roles/cni/cni-calico/templates/custom-resources.yaml**

master]# **vi custom-resources.yaml**

> cidr: 192.168.0.0/16

master]# **kubectl apply -f custom-resources.yaml**

# 네트워크

master]# **kubectl get pods -A**

> calico-apiserver calico-apiserver-7cf9cc6788-9q27x 1/1 Running 0 9m26s

> calico-apiserver calico-apiserver-7cf9cc6788-dcvvs 1/1 Running 0 9m26s

> calico-system calico-kube-controllers-65bfc7f4d9-2lstq 1/1 Running 0 11m

> calico-system calico-node-5mwks 1/1 Running 0 11m

> calico-system calico-node-qqllc 1/1 Running 0 11m

> calico-system calico-typha-5d7cdf588-q9x2z 1/1 Running 0 11m

> calico-system csi-node-driver-m8ht6 2/2 Running 0 11m

> calico-system csi-node-driver-zm6r6 2/2 Running 0 11m

# 네트워크

master/node]# **curl -o /etc/containers/policy.json https://raw.githubusercontent.com/tangt64/training_memos/main/opensource/kubernetes-101/files/policy.json**

# 테크톤 설치

# 테크톤 설치

master]# **kubectl apply --filename** https://storage.googleapis.com/tekton-releases/pipeline/latest/release.yaml

master]# **wget**
**https://github.com/tektoncd/cli/releases/download/v0.32.0/tkn_0.32.0_Linux_x86_64.tar.gz**

master]# **kubectl apply --filename** https://storage.googleapis.com/tekton-releases/dashboard/latest/release.yaml

master]# **kubectl --namespace tekton-pipelines port-forward svc/tekton-dashboard --address 172.19.199.81 9097:9097**

# 테크톤 장애 처리(설치 후)

master]# **kubectl delete validatingwebhookconfigurations.admissionregistration.k8s.io config.webhook.pipeline.tekton.dev**

master]# **kubectl delete validatingwebhookconfigurations.admissionregistration.k8s.io validation.webhook.pipeline.tekton.dev**

master]# **kubectl delete mutatingwebhookconfigurations.admissionregistration.k8s.io webhook.pipeline.tekton.dev**

# 테크톤 장애 처리(설치 후)

```
spec:
  hostNetwork: true
  replicas: 1
  selector:
```

# argo-cd