



Kubernetes Cluster upgrade

1. Control-plane의 k8s(kubeadm,kubelet,kubectl) 업그레이드

- Control-plane upgrade
- k8s cluster의 Control-plane을 버전 1.30.0 을 1.30.3 로 업그레이드하시요.
- 검색 키워드 : **upgrade**
 - <https://kubernetes.io/ko/docs/tasks/administer-cluster/kubeadm/kubeadm-upgrade/#업그레이드할-버전-결정>
 - <https://kubernetes.io/docs/tasks/administer-cluster/kubeadm/kubeadm-upgrade/#upgrading-control-plane-nodes>

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## k8s upgrade 1. 업그레이드 할 시스템 접속 ssh k8s-master sudo -i kubectl get
nodes NAME STATUS ROLES AGE VERSION k8s-master Ready control-plane 89d
v1.30.0 k8s-worker1 Ready <none> 89d v1.30.0 k8s-worker2 Ready <none> 89d
v1.30.0 2. 업그레이드할 버전 결정 및 확인. 버전을 검색 apt update apt-cache madison
kubeadm # 상위 몇개 라인만 확인 root@k8s-master:~# apt-cache madison kubeadm
kubeadm | 1.30.6-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb
Packages kubeadm | 1.30.5-1.1 |
https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubeadm | 1.30.4-1.1
| https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubeadm | 1.30.3-
1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubeadm |
1.30.2-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubeadm
| 1.30.1-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages
kubeadm | 1.30.0-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb
Packages root@k8s-master:~# apt-cache madison kubectl kubectl | 1.30.6-1.1
| https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubectl | 1.30.5-
1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubectl |
1.30.4-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubectl
| 1.30.3-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages
kubectl | 1.30.2-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb
Packages kubectl | 1.30.1-1.1 |
https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubectl | 1.30.0-1.1
| https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages root@k8s-master:~#
apt-cache madison kubelet kubelet | 1.30.6-1.1 |
https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubelet | 1.30.5-1.1
| https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubelet | 1.30.4-
1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubelet |
1.30.3-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages kubelet
| 1.30.2-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages
kubelet | 1.30.1-1.1 | https://pkgs.k8s.io/core:/stable:/v1.30/deb
Packages kubelet | 1.30.0-1.1 |
https://pkgs.k8s.io/core:/stable:/v1.30/deb Packages ... [컨트롤 플레인 노드 업
그레이드] https://kubernetes.io/docs/tasks/administer-
cluster/kubeadm/kubeadm-upgrade/#upgrading-control-plane-nodes # 1.30.0-
1.1에서 1.30.6-1.1를 패치 버전으로 바꾼다. 3. kubeadm 업그레이드 : kubeadm-1.30.6-
1.1 sudo apt-mark unhold kubeadm sudo apt-get update sudo apt-get install
-y kubeadm='1.30.6-1.1' sudo apt-mark hold kubeadm kubeadm version kubeadm
version: &version.Info{Major:"1", Minor:"30", GitVersion:"v1.30.6",
GitCommit:"00f20d443ba0cbc485d6ce36a7d3f9a9c4e8ed7a",
GitTreeState:"clean", BuildDate:"2024-10-22T20:33:19Z",
GoVersion:"go1.22.8", Compiler:"gc", Platform:"linux/amd64"} 4. master
components 를 업그레이드 kubeadm upgrade plan [preflight] Running pre-flight
checks. [upgrade/config] Reading configuration from the cluster...
[upgrade/config] FYI: You can look at this config file with 'kubectl -n
kube-system get cm kubeadm-config -o yaml' [upgrade] Running cluster
health checks [upgrade] Fetching available versions to upgrade to
[upgrade/versions] Cluster version: 1.30.3 [upgrade/versions] kubeadm
version: v1.30.6 I1101 06:16:07.867888 4786 version.go:256] remote version
is much newer: v1.31.2; falling back to: stable-1.30 [upgrade/versions]
Target version: v1.30.6 [upgrade/versions] Latest version in the v1.30
series: v1.30.6 Components that must be upgraded manually after you have
upgraded the control plane with 'kubeadm upgrade apply': COMPONENT NODE
CURRENT TARGET kubelet k8s-master v1.30.0 v1.30.6 kubelet k8s-worker1

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v1.30.0 v1.30.6 kubelet k8s-worker2 v1.30.0 v1.30.6 Upgrade to the latest
version in the v1.30 series: COMPONENT NODE CURRENT TARGET kube-apiserver
k8s-master v1.30.3 v1.30.6 kube-controller-manager k8s-master v1.30.3
v1.30.6 kube-scheduler k8s-master v1.30.3 v1.30.6 kube-proxy 1.30.3
v1.30.6 CoreDNS v1.11.1 v1.11.3 etcd k8s-master 3.5.12-0 3.5.15-0 You can
now apply the upgrade by executing the following command: kubeadm upgrade
apply v1.30.6
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The table below shows the current state of component configs as understood by this version of kubeadm. Configs that have a "yes" mark in the "MANUAL UPGRADE REQUIRED" column require manual config upgrade or resetting to kubeadm defaults before a successful upgrade can be performed. The version to manually upgrade to is denoted in the "PREFERRED VERSION" column.

API GROUP	CURRENT VERSION	PREFERRED VERSION	MANUAL UPGRADE REQUIRED
kubeproxy.config.k8s.io v1alpha1	v1alpha1	v1beta1	no
kubelet.config.k8s.io v1beta1	v1beta1	v1beta1	no

update 가능한 마스터 컴포넌트 확인하고 upgrade 실행 **sudo kubeadm upgrade apply v1.30.6 -y ...** [upgrade/successful] **SUCCESS!** Your cluster was upgraded to "v1.30.6". Enjoy! [upgrade/kubelet] Now that your control plane is upgraded, please proceed with upgrading your kubelets if you haven't already done so.

5. 노드 드레인 : console이나 control-plane(master)에서 kubelet을 업그레이드 해야하기 때문 **kubectyl drain k8s-master --ignore-daemonsets** # 삭제시 coredns delete pending 발생시 다른 터미널에서 # **kubectyl delete deployment coredns -n kube-system** # **kubectyl delete pod --force -n kube-system coredns-xxx-XXX** # 명령으로 수동 삭제 지원 필요 **kubectyl get nodes**

NAME	STATUS	ROLES	AGE	VERSION
k8s-master	Ready	SchedulingDisabled	control-plane	89d v1.30.0
k8s-worker1	Ready	<none>	89d v1.30.0	
k8s-worker2	Ready	<none>	89d v1.30.0	

6. kubelet과 kubectyl 업그레이드 **sudo apt-mark unhold kubelet** **kubectyl sudo apt-get update** **sudo apt-get install -y kubelet='1.30.6-1.1' kubectyl='1.30.6-1.1'** **sudo apt-mark hold kubelet** **kubectyl systemctl daemon-reload** **systemctl restart kubelet**

7. 노드 uncordon