

## Master Node

kubeadm

kubelet

kubectl

## Worker Node

kubeadm

kubelet

kubectl

# High level view for upgrade Kubernetes cluster

- Upgrade kubeadm
- Plan the upgrade (kubeadm upgrade plan)
- Upgrade the node (kubeadm upgrade apply)
- Drain the node (kubectl cordon node\_name )
- Upgrade kubelet & kubectl
- Restart the kubelet (systemctl daemon-reload ; systemctl restart kubelet)
- undrain the node (kubectl uncordon node\_name)

# Kubelet

- Kubelet is an agent, which runs on each workernodes.
- When we attach the worker node with Master node, this kublet will help us.
- The Kubelet is responsible for managing the deployment of pods to Kubernetes nodes.
- How many resources a POD is required, it will get it from Node.
- It receives commands from the API server and instructs the container runtime to start or stop containers as needed.

# kubectl

- The Kubernetes command-line tool, kubectl, allows you to run commands against Kubernetes clusters.
- You can use kubectl to deploy applications, inspect and manage cluster resources, and view logs.

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- Upgrade kubelet & kubectl
- Restart the kubelet (systemctl daemon-reload ; systemctl restart kubelet)
- undrain the node (kubectl uncordon node\_name)

v1.25

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graph TD; v125[v1.25]; v124[v1.24]; v123[v1.23]; v123 --- Apiserver; v123 --- Scheduler; v123 --- CM[controller-Manager]; v123 --- KKP[Kubelet Kube-Proxy]; v123 --- kubectl;
```

v1.24

v1.23

Apiserver

Scheduler

controller-  
Manager

Kubelet  
Kube-Proxy

kubectl