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Training Library / Create and Manage a Kubernetes Cluster from Scratch

# Joining a Worker Node to the Kubernetes Cluster

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## Open Cloud Environment



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Setup completed  
Average setup time: 3m 29s

## Credentials

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030925358 [Copy](#)

Username ⓘ

student [Copy](#)

Password ⓘ

Ca1\_6eFlz [Copy](#)

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Bridge Connection Completed

## Lab Steps

1

Logging In to Amazon Web Services Console

[Skip to content](#)

## Introduction

The process of adding a worker node with kubeadm is even simpler than initializing a control-plane node. You will join a worker node to the cluster using the command that kubeadm `init` provided in this lab step.

## Instructions

1. Open a second terminal connected to **instance-b** that is listed in the EC2 Console.

Refer back to the earlier lab step on connecting to instance-a using EC2 Instance Connect, if required. The SSH user name is again *ubuntu*.

2. Enter `sudo` followed by the `kubeadm join` command that you stored from the output of `kubeadm init`. It resembles:

[Copy code](#)

```
1 | sudo kubeadm join 10.0.0.100:6443 --token ... --discovery-token-
```

```
[preflight] Running pre-flight checks
[preflight] Reading configuration from the cluster...
[preflight] FYI: You can look at this config file with 'kubectl -n kube-system get cm kubeadm-config -o yaml'
[kubelet-start] Writing kubelet configuration to file "/var/lib/kubelet/config.yaml"
[kubelet-start] Writing kubelet environment file with flags to file "/var/lib/kubelet/kubeadm-flags.env"
[kubelet-start] Starting the kubelet
[kubelet-start] Waiting for the kubelet to perform the TLS Bootstrap...

This node has joined the cluster:
* Certificate signing request was sent to apiservert and a response was received.
* The Kubelet was informed of the new secure connection details.

Run 'kubectl get nodes' on the control-plane to see this node join the cluster.
```

Read through the output to understand the operations kubeadm performed.

3. In the control-plane node's SSH shell, confirm the worker node cluster:

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Menu



Browse Library ▾



## Instance Connect

3

Installing kubeadm and Its Dependencies

4

Initializing the Kubernetes Master Node

5

Joining a Worker Node to the Kubernetes Cluster

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The worker node appears with a role of **<none>**.

*Note:* It may take a minute for the worker node to become **Ready**.

4. Confirm that all the pods in the cluster are running:

Copy code

```
1 | kubectl get pods --all-namespaces
```

NAMESPACE	NAME	READY	STATUS
kube-system	calico-kube-controllers-849f565f6c-hss5c	1/1	Running
kube-system	calico-node-grktz	1/1	Running
kube-system	coredns-6d4b75cb6d-4v5rd	1/1	Running
kube-system	coredns-6d4b75cb6d-9824x	1/1	Running
kube-system	etcd-ip-10-0-0-100	1/1	Running
kube-system	kube-apiserver-ip-10-0-0-100	1/1	Running
kube-system	kube-controller-manager-ip-10-0-0-100	1/1	Running
kube-system	kube-proxy-khk44	1/1	Running
kube-system	kube-scheduler-ip-10-0-0-100	1/1	Running

All of the pods are **Running**, and the two-node cluster is operational. Notice that there are two Calico pods that support pod networking on each node.

## Summary

In this lab step, you joined a worker node to the cluster using `kubeadm join`.

### VALIDATION CHECKS

#### 1 Checks

Start check



#### Joined Worker Node

Check if a worker node has been joined.

Kubernetes

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End Lab

Start check

Skip to content

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Menu



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