**Rancher Installation and Configuration**

# Environment Details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Server Name** | **Description** | **OS** | **CPU** | **Memory** |
| hostname | Rancher K3S | Centos 7.8 | 2 | 16 |

# Rancher Installation:

## K3S Installation:

1. Install K3s. The below command simply downloads and executes the k3s installer, apply the same command on all the k3s nodes.

**$ curl -sfL**[**https://get.k3s.io**](https://get.k3s.io/)**| INSTALL\_K3S\_VERSION=v1.20.0+k3s2 sh –s**

1. Copy Kubeconfig to default location.

**$ cp –i /etc/rancher/k3s/k3s.yaml /root/.kube/config**

1. Check the nodes are up and running

**kubectl get nodes**

## Helm Installation and ADD Repo:

1. You can fetch the below script, and then execute it locally

**$ curl -fsSL -oget\_helm.sh**[**https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm-3**](https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm-3)

**$ chmod 700 get\_helm.sh**  
  
**$ ./get\_helm.sh**

1. Add the Helm Chart Repository.

**$ helm repo add rancher-stable https://releases.rancher.com/server-charts/stable**

## Rancher on k3s with HELM:

1. Create a Namespace for Rancher.

**$ kubectl create namespace cattle-system**

1. Install cert-manager.

$ kubectl apply --validate=false -f https://github.com/jetstack/cert-manager/releases/download/v1.0.4/cert-manager.crds.yaml

1. Once you’ve installed cert-manager, you can verify it is deployed correctly by checking the cert-manager namespace for running pods:

$ kubectl get pods --namespace cert-manager

1. Install Rancher with Helm and Rancher generated certs

$ helm install rancher rancher-stable/rancher --namespace cattle-system --set hostname=paramaah.com --version=v2.6.1

1. Wait until rollout and Verify that the Rancher Server is Successfully Deployed.

$ kubectl -n cattle-system get deploy rancher

1. Rancher UI can be accessible through the hostname mentioned