



Upgrade an RKE Cluster

Lab 4



What are you Learning?

In this lab you will [upgrade the Rancher Kubernetes Engine](#) (RKE) based cluster that you created in Lab 3.

Why is it important?

This lab will show you [how easy it is to upgrade your Kubernetes cluster](#) with RKE. You will be able to use [the configuration file, cluster state file and kubeconfig file](#) created in Lab 3 to upgrade your cluster.

Use **rke up** to Upgrade a Single Node Cluster

You'll use the configuration file in Lab 2 to upgrade your single node Kubernetes Cluster.

1. Use [rke config](#) to list the versions of Kubernetes supported by this version of rke.
2. In Lab 2 you should have selected one that is not the most recent. Now, you'll upgrade the cluster to the latest version.
3. Modify your cluster configuration file, [using the new Kubernetes version](#)
4. [Use rke up](#) to deploy the cluster to the single node.

```
rke up
```

```
INFO[0000] Building Kubernetes cluster
INFO[0000] [dialer] Setup tunnel for host [10.0.0.1]
INFO[0000] [network] Deploying port listener containers
INFO[0000] [network] Pulling image [alpine:latest] on host
[10.0.0.1]
...
INFO[0101] Finished building Kubernetes cluster successfully
```

5. RKE will have [created several files](#). Keep these in a safe place.

Testing That It Works

1. You can now use the [kubeconfig file](#) with [kubectl](#) to test access to the cluster.

References

- How Upgrades Work - <https://rancher.com/docs/rke/latest/en/upgrades/how-upgrades-work/>
- Upgrades - <https://rancher.com/docs/rke/latest/en/upgrades/>
- Save Your Files - <https://rancher.com/docs/rke/latest/en/installation/#save-your-files>
- Listing Supported Kubernetes Versions - <https://rancher.com/docs/rke/latest/en/upgrades/#listing-supported-kubernetes-versions>

- Upgrading Kubernetes - <https://rancher.com/docs/rke/latest/en/upgrades/#upgrading-kubernetes>
- Deploying Kubernetes with RKE - <https://rancher.com/docs/rke/latest/en/installation/#deploying-kubernetes-with-rke>
- Kubeconfig File - <https://rancher.com/docs/rke/latest/en/kubeconfig/>
- Configuring Access to Multiple Clusters - <https://rancher.com/docs/rke/latest/en/kubeconfig/>