Longhorn Deployment and Operations (LHN201)

ID LHN201 **Price** on request **Duration** 2 days

Who should attend

This course is designed for system administrators and other persons responsible for provisioning and administering Kubernetes clusters with Rancher Manager for Rancher Prime.

Prerequisites

An understanding of Kubernetes objects and resources is needed for this course. This knowledge can be gained through the Kubernetes Administration with RKE2 (RKE201V2) course. Linux command line experience is helpful.

Course Objectives

Attendees will be taught the following concepts and skills:

- An Introduction to Longhorn
- Installation of Longhorn via Helm and as a Rancher Application
- Management of Nodes
- Management of Disks and Volume Replicas
- Logging and Monitoring of Clusters
- Backing up and Restoring of Volumes
- Disaster Recovery Volumes
- Upgrading Longhorn Manager and Engine

Course Content

Section 1: Course Introduction

Section 2: Introduction to Longhorn

- Introduction to Longhorn
- High-level Overview of Longhorn Features
- Overview of the Longhorn Architecture

Section 3: Install Longhorn

- Installation Requirements
- Installation with Helm
- Installation as a Rancher Application
- Longhorn Web UI Features

Section 4: Node Management

- Enable or Disable Nodes
- Add a new Node in Cluster
- Node Maintenance
- Remove a Node from Cluster

Section 5: Disk and Volumes Management

- Add Individual Disk Partition
- Remove Disk Storage
- Add LVM Storage
- Create a Volume
- Use Trim to Reclaim Storage Space
- Resize Volume
- Tune Storage Performance by Data Locality

Section 6: High Availability in Longhorn

- Define Replica Counts and Location
- Replica Balancing for even Distribution of Resources

Section 7: Monitor and Troubleshoot Longhorn

- Install Prometheus and Grafana for Monitoring Longhorn's Vital Metrics
- Integrate Longhorn Metrics with the Rancher Monitoring System
- Configure Longhorn Alert Rules
- Recover from Failures

Section 8: Longhorn Backup and Restore

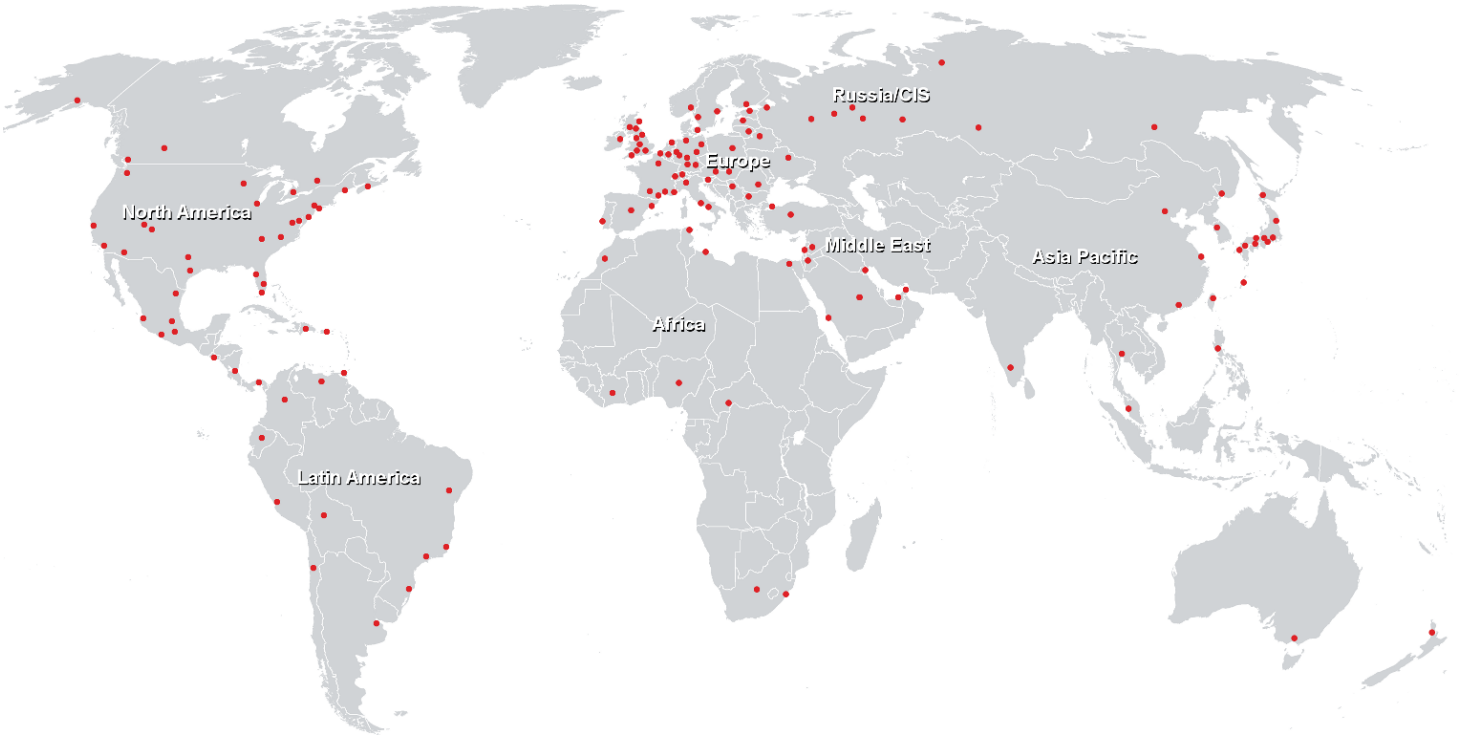
- Manually Create a Snapshot of a Volume
- Restore a Volume from a Snapshot Manually
- Delete a Volume Snapshot
- Work with Recurring Volume Snapshot
- Manually Create a Backup of a Volume
- Restore a Volume from a Backup
- Work with Recurring Volume Backups
- Work with Disaster Recovery Volumes

Section 9: Upgrade Longhorn

- Upgrade Longhorn Manager
- Upgrade Longhorn Engine

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Training Centres worldwide





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