Red Hat - Linux

RH436VT: Red Hat High Availability Clustering

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- 5 Days

Upcoming Dates

Course Description

Design and deploy a high availability cluster

Red Hat® High Availability Clustering (RH436) provides intensive, hands-on experience with the Pacemaker component of the Red Hat Enterprise Linux High-Availability Add-On, as well as cluster storage components from the Resilient Storage Add-On, including Cluster Logical Volume Manager (CLVM), Red Hat Global File System 2 (GFS2), and Device-Mapper Multipath.

This course is based on Red Hat Enterprise Linux 7.1.

Created for senior Linux® system administrators, this 4-day course strongly emphasizes lab-based activities. You'll learn how to deploy and manage shared storage and server clusters that provide highly available network services to a mission-critical enterprise environment.

This course also helps you prepare for the Red Hat Certified Specialist in High Availability Clustering exam (EX436).

Course content summary

- Install and configure a Pacemaker-based high availability cluster
- Create and manage highly available services
- Troubleshoot common cluster issues
- Work with shared storage (iSCSI) and configure multipathing
- Configure GFS2 file systems

Course Outline

Clusters and storage

Get an overview of storage and cluster technologies.

Create high-availability clusters

Review and create the architecture of Pacemaker-based high-availability clusters.

Nodes and quorum

Review cluster node membership and how quorum is used to control clusters.

Fencing

Understand fencing and fencing configuration.

Resource groups

Create and configure simple resource groups to provide high-availability services to clients.

Troubleshoot high-availability clusters

Identify and troubleshoot cluster problems.

Complex resource groups

Control complex resource groups by using constraints.

Two-node clusters

Identify and work around two-node clusters issues.

ISCSI initiators

Manage iSCSI initiators for access to shared storage.

Multipath Storage

Configure redundant storage access.

Logical volume manager (LVM) clusters

Manage clustered LV.

Global File System 2

Create symmetric shared file systems.

Eliminate single points of failure

Eliminate single points of failure to increase service availability.

Comprehensive review

Set up high-availability services and storage.

Note: Course outline is subject to change with technology advances and as the nature of the underlying job evolves. For questions or confirmation on a specific objective or topic, please contact a training specialist.

Audience

- Senior Linux system administrators responsible for maximizing resiliency through high-availability clustering services and using fault-tolerant shared storage technologies

Prerequisites

If you want to take this course without the exam (RH436) and have not earned your RHCE $^®$ certification, you can confirm that you have the necessary knowledge by passing the online skills assessment.

What You Will Learn

Impact on the organization

This course is intended to develop the skills needed to produce highly available, more resilient, mission critical applications, resulting in reduced downtime and easier hardware maintenance.

Red Hat has created this course in a way intended to benefit our customers, but each company and infrastructure is unique, and actual

results or benefits may vary.

Impact on the individual

As a result of attending this course, students should be able to create, manage, and troubleshoot highly available network services and tightly-coupled cluster storage for business-critical applications.

Students should be able to demonstrate the following skills:

- Improve application uptime by using high availability clustering
- Manage storage in an high availability environment using iSCSI initiators, HA-LVM or CLVM as appropriate, and GFS2 cluster file systems
- Implement strategies to identify single points of failure in high availability clusters and eliminate them