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Red Hat High Availability Clustering With Exam

Duration: 5 Days Course Code: RH437

Overview:

Red Hat® Enterprise Clustering and Storage Management with Exam (RH437) provides intensive, hands-on experience with storage management, Red Hat Cluster Suite, and the shared storage technology delivered by Red Hat Global File System (GFS). Created for senior Linux® system administrators, this 4-day course has a strong emphasis on lab-based activities. At the end of the course, students will have learned to deploy and manage shared storage and server clusters that provide highly available network services to a mission-critical enterprise environment.

A Red Hat Certified Engineer (RHCE®) who successfully completes this course is prepared to take the Red Hat Enterprise Clustering and Storage Management Expertise Exam (EX436).

Target Audience:

An experienced Linux system administrator responsible for managing shared storage across 1 or more Linux systems, an experienced Linux system administrator responsible for maintaining a high-availability service using cluster technology, an RHCE interested in earning a Red Hat Certificate of Expertise, a Red Hat Certified Datacenter Specialist (RHCDS) or a Red Hat Certified Architect (RHCA) credential.

Objectives:

- Setup and management of high-availability clustered services with Red Hat Cluster Suite
- Providing iSCSI targets with Red Hat Enterprise Linux
- Customization and control of device files with udev

- Storage I/O multipath with device mapper
- Using cluster Logical Volume Management (LVM)
- Configuration and use of the Red Hat Global File System cluster file system for shared storage

Prerequisites:

RHCE certification or equivalent experience

Testing and Certification

- Red Hat Enterprise Clustering and Storage Management Expertise Exam (EX436) Hands-on, performance-based, 4-hour exam.
- This course prepares you for these credentials:
- Red Hat Certified Architect RHCA
- Red Hat Certified Datacenter Specialist RHCDS Certificates of Expertise

Follow-on-Courses:

- RH401, Red Hat Enterprise Deployment and Systems Management
- RHS333, Red Hat Enterprise Security Network Services
- RH442, Red Hat Enterprise Performance Tuning

Content:

Storage technologies

- Storage Requirements
- NAS vs. SAN
- Configuring an iSCSI initiator
- Configuring an iSCSI target
- Authentication
- udev rule configuration
- I/O scheduler
- Multipath device configuration
- Cluster configuration tools
- Setting up clusered logical volumes
- Lock management
- Planning for and growing online GFS
- Monitoring tools
- Journal configuration and management
- Cluster tools
- Failover domains
- Hierarchical resource ordering
- High-availability services

<u>iSCSI</u>

- iSCSI as a shared storage device
- NAS vs. SAN
- Configuring an iSCSI initiator
- Configuring an iSCSI target
- Authentication
- udev rule configuration
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Journal configuration and management

- NAS vs. SAN
- Configuring an iSCSI initiator

Quorum and the cluster manager

Intracluster communication

Configuring an iSCSI initiator

Multipath device configuration

Hierarchical resource ordering

Configuring an iSCSI initiator

Multipath device configuration

Hierarchical resource ordering

High-availability services

Heuristic configuration

Setting up clusered logical volumes

Planning for and growing online GFS

Journal configuration and management

Resource Group Manager (rgmanager)

Resource groups and recovery

Configuring an iSCSI initiator

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Configuring an iSCSI target

udev rule configuration

Cluster configuration tools

Lock management

Monitoring tools

Failover domains

Cluster tools

Quorum disk

NAS vs. SAN

Authentication

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Configuring an iSCSI target

High-availability services

Setting up clusered logical volumes

Planning for and growing online GFS

Journal configuration and management

Cluster configuration tools

Lock management

Monitoring tools

Failover domains

Fencing and failover

Fencing components

NAS vs. SAN

Authentication
 udev rule configuration

I/O scheduler

Cluster tools

Configuring an iSCSI target

udev rule configuration

NAS vs. SAN

Authentication

I/O scheduler

- Configuring an iSCSI target
- Authentication
- udev rule configuration
- I/O scheduler
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Red Hat Cluster Suite overview

- Design and elements of clustering
- NAS vs. SAN
- Configuring an iSCSI initiator
- Configuring an iSCSI target
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Logical Volume Management

- LVM review
- NAS vs. SAN
- Configuring an iSCSI initiator
- Configuring an iSCSI target
- Authentication
- udev rule configuration
- I/O scheduler

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- Multipath device configuration
- Cluster configuration tools
- Setting up clusered logical volumes
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Journal configuration and management

- Cluster tools
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Kernel Device Management

- udev features
- NAS vs. SAN
- Configuring an iSCSI initiator
- Configuring an iSCSI target
- Authentication
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- Cluster tools
- Failover domains
- Hierarchical resource ordering

I/O scheduler

Multipath device configuration

Hierarchical resource ordering

Configuring an iSCSI initiator

Multipath device configuration

Hierarchical resource ordering

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NAS vs. SAN

Authentication

I/O scheduler

High-availability services

Global File System (GFS) 2

- Implementation and configuration
- NAS vs. SAN
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- Configuring an iSCSI target
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Multipath device configuration

Setting up clusered logical volumes

Planning for and growing online GFS

Journal configuration and management

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Cluster configuration tools

- Authentication
- udev rule configuration

Lock management

Monitoring tools

Cluster tools

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I/O scheduler

 Failover domains Hierarchical resource ordering High-availability services 	 Failover domains Hierarchical resource ordering High-availability services
Device mapper and multipathing	
Mapping targets	 NAS vs. SAN Configuring an iSCSI initiator Configuring an iSCSI target Authentication udev rule configuration I/O scheduler Multipath device configuration Cluster configuration tools Setting up clusered logical volumes Lock management Planning for and growing online GFS Monitoring tools Journal configuration and management Cluster tools Failover domains Hierarchical resource ordering High-availability services

Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278

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