

**Module Title** : Course RH436 : Red Hat High Availability Clustering  
**Duration** : 4 days

## Course Description

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. 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). This course is based on Red Hat Enterprise Linux 7.1.

### 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

### Audience:

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

### Prerequisites:

- Red Hat Certified Engineer (RHCE) certification or equivalent experience
- Candidates who are not an RHCE are encouraged to check their experience levels by taking a free pre-assessment test at [redhat.com/training/assessment](http://redhat.com/training/assessment)

## 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.