

# Red Hat High Availability Clustering

Kód kurzu: RH436

Deploy reliable, available critical production services in a high availability cluster. In the Red Hat High Availability Clustering (RH436) course, you will learn how to provide highly available network services to a mission-critical enterprise environment through the deployment and management of shared storage and server clusters. Created for senior Linux system administrators, this 4-day course strongly emphasizes lab-based activities. You will set up a cluster of systems running the Pacemaker component of the Red Hat Enterprise Linux High-Availability Add-On, and deploy Linux-based services such as web servers and databases on that cluster. Cluster storage components from the Resilient Storage Add-On are also covered; installations and applications that require multiple cluster nodes can access the same storage simultaneously. This includes Logical Volume Manager (LVM) Shared Volume Groups, Red Hat Global File System 2 (GFS2), and Device-Mapper Multipath. This course is based on Red Hat Enterprise Linux 8.3.

Pobočka	Dní	Katalógová cena	ITB
Praha	4	2 540 €	0
Bratislava	4	2 540 €	0

Všetky ceny sú uvedené bez DPH.

## Termíny kurzu

Dátum	Dní	Cena kurzu	Typ výučby	Jazyk výučby	Lokalita
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## Pro koho je kurz určen

Senior Linux system administrators who use high-availability clustering and fault-tolerant shared storage technologies to maximize resiliency of production services.

## Co Vás naučíme

- 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.
- Implement Logical Volume Manager (LVM) in cluster-aware configurations.
- Configure GFS2 file systems on storage shared by multiple nodes.

## Požadované vstupní znalosti

- Red Hat Certified System Administrator (RHCSA) exam (EX200) and associated courses.
- Red Hat Certified Engineer (RHCE) exam (EX294) and associated courses.

## Studijní materiály

Studijní materiál Red Hat

## Osnova kurzu

### Creating high availability clusters

Create a basic high availability cluster.

### Managing cluster nodes and quorum

Manage node membership in the cluster and describe how it impacts cluster operation.

### Isolating malfunctioning cluster nodes

Isolate unresponsive cluster nodes to protect data and recover services and resources after a failure.

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# Red Hat High Availability Clustering

## **Creating and configuring resources**

Create basic resources and resource groups to provide highly available services.

## **Troubleshooting high availability clusters**

Identify, diagnose, and fix cluster issues.

## **Automating cluster and resource deployment**

Deploy a new high availability cluster and cluster resources using Ansible automation.

## **Managing two-node clusters**

Operate two-node clusters while identifying and avoiding issues specific to a two-node cluster configuration.

## **Accessing iSCSI storage**

Configure iSCSI initiators on your servers to access block-based storage devices provided by network storage arrays or Ceph storage clusters.

## **Accessing storage devices resiliently**

Configure resilient access to storage devices that have multiple access paths.

## **Configuring LVM in clusters**

Select, configure, and manage the correct LVM configuration for use in your cluster.

## **Providing storage with the GFS2 cluster file system**

Use the GFS2 cluster file system to simultaneously provide tightly coupled shared storage that can be accessed by multiple nodes.

## **Eliminating single points of failure**

Identify and eliminate single points of failure in your cluster to decrease risk and increase average service availability.

Note: Course outline is subject to change with technology advances and as the nature of the underlying job evolves.

## **Čo musíte vedieť**

### **Impact on the organization**

High availability clustering can improve reliability, availability, and resiliency of your mission-critical services, 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, you will 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 a high availability environment using iSCSI initiators, HA-LVM or LVM Shared Volume Groups as appropriate, and GFS2 cluster file systems.

Implement strategies to identify and eliminate single points of failure in high availability clusters.