

Windows Server 2012 R2: Failover Clustering



WorkshopPLUS

This workshop will provide participants with the necessary knowledge to begin deploying and managing Failover Clustering technology using Windows Server 2012 R2 in their environment.

Target Audience:

To ensure the high-quality knowledge-transfer expected by attendees of this three-day workshop, class size is limited to a maximum of 16 students who meet the following criteria:

3-5 years minimum experience administering Microsoft Windows Server based operating systems.

Overview

Windows Server 2012 R2 Failover Clustering is a three-day workshop that will give participants everything they need to successfully design, deploy and manage Windows Server 2012 R2 Failover Clusters. Numerous hands-on labs cover all aspects of the Windows Server 2012 R2 Failover Clustering platform, including deployment, troubleshooting and disaster recovery.

Key Features and Benefits

Each workshop module is designed to provide participants with in-depth knowledge of all relevant Failover Cluster topics, such as the Quorum model, advanced management using Windows PowerShell and automatic updates using Cluster Aware Updating.

Technical Highlights

After completing this course, attendees will be able to:

- Identify key features of Failover Clustering.
- Review Best Practices.
- Understand efficient methods of deploying and managing Failover Clustering environments.

Syllabus

Hardware Requirements:

To participate in the course, students need to have access to a workstation that meets or exceeds the minimum hardware and software requirements below.

If you are attending an Open Enrollment, the hardware will be provided for you. Contact your TAM if the necessary hardware needs to be provided.

If you are coordinating a closed delivery (dedicated delivery for your organization) and require hardware or are interested in having the virtual environment hosted in the cloud, then please contact your TAM for more information.

Cloud Hosted labs only require internet connectivity. Hardware requirements are: Windows 8.1 with Hyper-V enabled, at least 4 CPU cores, 16GB of RAM and 100 GB of free disk space.

This workshop runs for three full days. Students should anticipate consistent start and end times for each day. Early departure on any day is not recommended.

Module 1: An Introduction: The first module covers all that is required to successfully deploy a Windows Server 2012 R2 Failover Cluster, using either the full user interface or Windows PowerShell.

Module 2: A Closer Look: Topics include a discussion of the Quorum, the various cluster networks and how a Failover Cluster checks all of its highly available roles and how it responds to any failures, should they occur.

Module 3: Managing A Failover Cluster: This module covers managing cluster nodes, cluster storage (including encrypting cluster disks using BitLocker) and migrating roles between clusters. It also includes techniques to talk to older clusters that natively do not understand Windows PowerShell.

Module 4: Troubleshooting And Disaster Recovery: The last module in this workshop is all about troubleshooting any issue that may appear in your Windows Server 2012 R2 Failover Cluster environment, and taking the most efficient action to fix whatever is not working as it should. This includes using the Cluster Log and various backup and restore methods.