MOC 50604 A First Look: Microsoft Windows Server 8

Course Summary

Description

This one-day instructor-led course is intended for IT professionals, administrators and decision makers, who are interested to get detailed technical information about the new features of Microsoft Windows Server 2008.

Objectives
At the end of this course, students will be able to:

Get detailed practical technical information about the new features of Windows Server 2008.

Topics

- Overview about the new features of Windows Server 8This module explains the main lessons
- Installation and Multi-Server Management Tasks
- Core Network infrastructure services
- Windows Server 2008 File and storage services
- Exploring Windows Server 2008 Hyper-V
- Unified Remote Access in Windows Server 2008
- Windows Server 2008 Active Directory
- Windows Server 2008 Dynamic Access Control
- Windows Server 2008 Remote Desktop Services

Audience

This course is intended for Windows Server IT professionals, administrators and decision makers, which have know-ledge and practical experience about previous versions of Microsoft Windows Server (Windows Server 2000/2003/ 2008 or 2008 R2) and network technologies. This course is for IT-administrators, which want to expand their know-ledge about Windows Server 2008 and especially want to learn about the new features of Windows Server 2008. A minimum of three years of experience designing, configuring or supporting Microsoft Windows Server operating systems is recommended.

Prerequisites

Students should have a basic understanding and experience with Microsoft Windows Server 2000/2003/2008/R2) TCP/IP and networking skills Basic understanding and experience with virtual clients/server (VMWare or Microsoft) Experience working in a domain environment Experience using desktop and command-line tools.

Duration

One day

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Course Outline

I. Overview about the new features of Windows Server 8

This module explains the main lessons of the course and gives a fast overview about the topics. At the end of the module students explore the new Server Manager of Windows Server 2008 in practical labs.

A. Core Network infrastructure services
B. Windows Server 2008 File and storage services
C. Windows Server 2008 Hyper-V
D. Windows Server 2008 Unified Remote Access
E. Windows Server 2008 Active Directory
F. Windows Server 2008 Dynamic Access Control
G. Windows Server 2008 Remote Desktop Services

Lab : Installing and First Configuration of Windows Server 2008

- Live installation and configuration of Windows Server 2008 on Student-PCs
- Exploring Windows Server 2008 Server Manager
- Installation and removing of Windows Server 2008 GUI

II. Installation and Multi-Server Management Tasks

This module explains how to use Powershell 3.0 and WMI for centralized server management in Windows Server 2008. It shows the new Dashboard Server Manager, which will help to reduce the expenditure of time in scenario-based deployments. Students accomplish a scenario-based deployment of a server role on multiple servers in a practical lab.

A. Overview about Windows Server 2008 multi-server management features
B. Important issues in Windows Server 2008 Release Candidate
C. Working with the Server Manager Dashboard of Windows Server 2008
D. Role-based and Scenario-Based Deployment of Server Roles and Features
E. Multi-Server Management with Server Manager and Powershell 3.0

Lab : Multi-Server management with Powershell and Server Manager

- Performing a Role-based Deployment of DNS Servers in Windows Server 2008
- Performing a Remote Desktop Services scenario-based Deployment

III. Core Network infrastructure services

This module explains the changes in Windows Server 2008 DNS and DHCP Server. Students learn about IPAM-Management and how IPAM is implemented in Windows Server 2008 for centralized management of this core network services. They learn about automatic zone signing with DNSSec in Windows Server 2008. They get to know about DHCP failover and load balancing feature and DHCP policy-assignment.

A. Overview about Windows Server 2008 core networking services enhancements
B. DNS and DHCP Management with Windows Server 2008 IPAM
C. Windows Server 2008 DHCP Hot Standby Failover
D. Windows Server 2008 DHCP Active/Active Load Balancing
E. Windows Server 2008 DNSSec Automatic Zone-Signing
F. Windows Server 2008 DNS and DHCP Powershell cmdlets

Lab : Windows Server 2008 IPAM Management of DNS and DHCP

- Centralized management of DNS and DHCP Server with Microsoft IPAM

Lab : Windows Server 2008 DHCP Load-Balancing, Failover and Policies

- Configuring active/active load balancing for DHCP Servers
- Configuring a hot standby failover partnership between two DHCP Servers
- Determine policy-based DHCP assignment

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Course Outline (cont'd)

IV. Windows Server 2008 File and storage services

This module explains the advantages of the new Microsoft File System ReFS. The students will get an overview about the new possibilities of storage spaces and pools and learn about the advantages of these features. They learn about the enhanced capabilities of DFS-N and DFS-R, SMB 2.2, de-duplication and branch cache in Windows Server 2008.

A. Overview about Windows Server 2008 File server and storage management enhancements
B. ReFS - the new file system
C. Storage Pools and Storage Spaces
D. SMB 2.2
E. De-duplication

Lab : Exploring ReFS

- Exploring File and Storage Services and Resilient File System (ReFS).

Lab : Windows Server 2008 Storage Pools and Spaces

- Configure a Storage Pools and a Storage Spaces.

Lab : Windows Server 2008 De-duplication

- Configuration of Windows Server 2008 De-duplication.

V. Exploring Windows Server 2008 Hyper-V

This module explains the new features of Hyper-V in Windows Server 2008. Students learn how Windows Server 2008 Hyper-V can be used for building, configuring and administering cloud-based networks and services. Students learn about the enhanced host and virtual machine improvements like the new vhdx-Format, which supports up to 16TB virtual hard disk space for every virtual disk. Students learn about new Hyper-V network improvements like network virtualization, extensible virtual switch, PVLANs, DHCP Guard and IPSec Task Offload. They learn also about Hyper-V clustering improvements like Storage Live Migration, Hyper-V Replica, how to migrate multiple virtual machines at the same time and Cluster shared volume improvements. In this module they get knowledge about improved management capabilities with Hyper-V Powershell 3.0 cmdlets.

A. Overview about new features of Windows Server 2008 Hyper-V
B. Windows Server 2008 Hyper-V in the Cloud
C. Hyper-V 3.0 Performance and scale
D. Hyper-V 3.0 Virtual machine improvements
E. Hyper-V 3.0 Networking improvements
F. Hyper-V 3.0 Clustering improvements
G. Hyper-V 3.0 Storage improvements
H. Hyper-V 3.0 Management improvements

Lab : Perform a Hyper-V Replication

- Perform a Hyper-V Replication with Windows Server 2008

Lab : Building a Hyper-V Cluster with LiveMigration

- Configure a Hyper-V Cluster and test LiveMigration

Lab : Perform a HyperV Storage-Migration

- Perform a simple HyperV Storage Migration

Lab : Configure Hyper-V DHCP- and Router Guard

- Exploring the Hyper-V DHCP- and Router-Guard settings

VI. Unified Remote Access in Windows Server 2008

This module gives an overview about the key components of Windows Server 2008 unified remote access and Direct Access. Students learn how to setup a Windows Server 2008 Direct Access server. This module explains how to use Windows Server 2008 unified remote access with Direct Access, so that a user-initiated VPN-connection is not longer needed. Students learn how to use Windows Server 2008 Direct Access to connect remote clients to private or public clouds and how Direct Access can be used to easily and securely connect remote clients to Intranet, File Server or other internal resources. Students discover, how to use Windows Server 2008 Direct Access entry points for easily switching between a private and public cloud in a multi-site cross-connectivity scenario and learn about new monitoring capabilities for direct access remote connections.

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A. Overview about Unified Remote Access in Windows Server 2008
B. Components of Windows Server 2008 Direct Access
C. Simplified Configuration of Windows Server 2008 Direct Access
D. Windows Server 2008 Direct Access Deployment Scenarios
E. Windows Server 2008 Direct Access MultiSite Deployment
F. Windows Server 2008 Direct Access in an Edge Topology Scenario
G. Windows Server 2008 Direct Access Setup Process
H. Windows Server 2008 Direct Access Connections

Lab : Setup Windows Server 2008 Direct Access Server in an Edge Topology scenario

- Use the Direct Access and Remote access services configuration wizard to setup a Windows Server 2008 Direct Access edge server.

VII. Windows Server 2008 Active Directory

This module explains some new features of Windows Server 2008 Active Directory. Students learn how to use the enhancements of Active Directory Administrative Center (ADAC) in Windows Server 2008, like GUI-based configuration of the AD Recycle Bin and fine-grained password policies feature. They learn about the integration of Powershell into ADAC and Windows powershell history. Also Students get an overview about the enhancements in dcpromo, like remote dcpromo and built-in troubleshooting possibilities inside dcpromo for performing an easier domain controller installation. The students get an overview about DC-cloning and the capabilities of it and they learn about the simplified possibility to perform Microsoft product activation easier through Active Directory with use of Volume activation services.

A. Windows Server 2008 Active Directory Administrative Center (ADAC)
B. Remote Dcpromo and Built-in Troubleshooting
C. Windows Server 2008 Active Directory Snapshot
D. Windows Server 2008 DC-cloning
E. LDAP-based AD-integrated Activation
F. Group Policy enhancements

Lab : Exploring the enhanced Active Directory Administrative Center (ADAC)

- Configure AD Recycle Bin and fine-grained password policies (FGGP) with the new Windows Server 2008 ADAC GUI interface.
- Use ADAC as PowerShell-based administration tool and use Windows Powershell history.

Lab : Remote Domain Controller Installation

- Use Windows Server 2008 server manager to perform a remote domain controller installation.

Lab : Virtualized domain controller cloning

- Deploying a virtualized domain controller through cloning.
- Safely restoring a domain controller snapshot.

Lab : Safely restore a domain controller snapshot

- Deploying a virtualized domain controller through cloning.Safely restoring a domain controller snapshot.

VIII.Windows Server 2008 Dynamic Access Control

This module explains the Windows Server 2008 claims-based access control through Windows Server 2008 File Classification and Windows Server 2008 Dynamic Access Control. It gives an overview about the key concepts of automating file classification through the Windows Server 2008 File Classification feature and shows, how to combine it with Dynamic Access Control, to improve the centrally management of file system authorization.

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In this module students learn how to use and configure central access policies at the domain level. Students learn how Dynamic Access Control provides additional security to any existing share and NTFS permission, which ensures that regardless of how the share and NTFS permissions might be changing on a day-to-day basis, this central overriding policy will still be enforced.

A. Students learn how Dynamic Access Control and File Classification Service are integrated into Active Directory. They see how FCI and DAC work together, to improve file authorization security.
B. Windows Server 2008 File Classification Infrastructure.
C. Windows Server 2008 Central Access and Audit Policies.
D. Windows Server 2008 User- and Device Claims.
E. Classifications and expression-based ACLs.

Lab : Windows Server 2008 Dynamic Access Control

- Configure Windows Server 2008 Central access policies based on active directory security groups and claims-based file properties for a Finance File Server through Active Directory.
- Test access from finance department users to their files, which have been protected through Windows Server 2008 Central Access Policy.

IX. Windows Server 2008 Remote Desktop Services

This module explains the new features of Windows Server 2008 Remote Desktop Services. This module gives an overview about the most important new features of Windows Server (and client) 2008 Remote Desktop Service. It treats the installation and configuration of the Remote Desktop Session Host, Gateway, Web Access and Session Broker. The students learn about the new remote desktop experience like RemoteFX adaptive graphics, media remoting, multi-touch and USB-redirection. They also learn about Windows 8 Metro Style Remote Desktop App and how to use it.

X. Overview about Windows Server 2008 Remote Desktop Services

A. Scenario-based Deployment of RDS Roles
B. Windows Server 2008 Remote Desktop Session Host and Gateway
C. Windows Server 2008 Remote Desktop Web Access
D. Windows Server 2008 Remote Desktop Session Broker
E. Windows 8 Metro Style Remote Desktop App
F. Windows Server 2008 RemoteFX

Lab : Configuring the Remote Desktop Services Desktop Virtualization

- Remote Desktop Virtualization with Windows Server 2008 Hyper-V and Remote Desktop Services.

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