Exam 70-410: Installing and Configuring Windows Server 2012

Course Overview

This course is part one, of a series of three courses, which validate the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure into an existing enterprise environment.

Module 02 - Windows Server 2012 Management   1h
Windows Server 2012 Management
Server Manager
Demo - Add Roles Server Manager
Demo - Event Viewer
Demo - Best Practice Analyzer
Administrative Tools Available
Demo - Administrative Tools Available
Enabling Remote Management
Delegate Administration
Delegation Planning
Demo - Delegation of Domain Administration
Advanced Services
Configuring NIC Teaming
Switch Dependent Teaming Modes
Module 02 Review

Module 03 - Working with Server Core   1h 19m
Working with Server Core
Demo - Installing Server Core
Introduction to PowerShell
Demo - PowerShell
Adding GUI to Server Core
Removing GUI to Server Core
To Install a Removed Role or Feature Using WIM Image
Server Core Tools
Demo - Recover from Closing Command Prompt
Rolls Available to Server Core
Listing Roles on Server Core
Enabling Remote Management
Demo - Netsh-Firewall
Server Configuration - Core
Demo - Sconfig on Server Core
Features Not Supported by Server Core
Installing Domain Controllers on Server Core - Options
PowerShell Examples for User Management
PowerShell Examples for Group Management
PowerShell Examples for Computer Management
PowerShell Examples for OU's
Module 03 Review

Module 04 - Configuring Local Storage   43m
Configuring Local Storage
Key Features of Storage
Storage Spaces
Offload Data Transfers (ODX)
SMB 3.0 Support
File System Enhancements
Storage Management
Resilient File System (ReFS)
Storage PowerShell Cmdlets

Configure Basic Disks
Configure Dynamic Disks
Common Operations – Basic and Dynamic Disks
Demo - Creating Volume Mount Points
Configuring MBR Disks
Configuring GPT Disks
Installing And Configuring A New Disk
eNotes: Types of Volumes / Pools
Demo - Create VHDs
Extending and Shrinking Volumes
Utilities for Volumes
Module 04 Review

Module 05 - Configure File and Print Access   1h 15m
File Shares and Permissions
Create and Configure Shares
File Sharing Profiles
Demo - Configure File Shares
Configure Offline Files
Offline Files Settings
Configure NTFS Permissions
NTFS Permissions
eNotes: NTFS Permission Examples
Access Based Enumeration (ABE)
Configure Volume Shadow Copy Service (VSS)
Demo - Shadow Copies
Configure Print and Document Services
Demo - Install Print and Document Services Role
Easy Print - Print Driver
Network Printing Security Options
Demo - Create a Shared Printer
Printer Pooling
Demo - Creating a Printer Pool
Branch Office Direct Printing
Options to Deploy Printers
Module 05 Review

Module 06 - Remote Management and Virtualization   1h 52m
Remote Management
Demo - Enable Remote Management
Remote Management - MISC
Remote Desktop
Demo - Remote Desktop
Multi-Server Management
Demo - Server Groups
Virtualization
Presentation Virtualization
Remote Desktop Gateway
Virtualization
Hyper-V
Application Virtualization (App-V)

Microsoft Enterprise Desktop Virtualization (MED-V)
Simulated Hardware for VM's
Demo - Create a VM
Demo - Hyper-V Settings
Dynamic Memory
Integration Services
Start and Stop Actions
Resource Metering
Virtual Hard Disk
Virtual Disk Types
Shrinking Fixed Virtual Hard Disks
VHD′s vs. VHDX
Demo - Managing VHD′s
Differencing Disks
Virtual Hard Disk Operations/Maintenance Operations
Methods of Creating Virtual Hard Disk
VHD′s and File Shares
Differencing Disks
Virtual Networks
Virtual Network Extensions
Demo - Hyper-V Network Settings
Virtual Adapters
Legacy Network Adapters
Demo - Creating Network Adapters
Considerations for VM Network Configuration
Important Note – External Virtual Networks
Virtual Machine MAC Address
Using Snapshots
Module 06 Review

Module 07 - TCP/IP Protocol Suite   1h 42m
TCP/IP Protocol Suite
Components of Network Infrastructure
TCP/IP Protocol
Architecture
TCP/IP Applications
Sockets
Ports
IPv4 Addressing
IP Configuration
Public vs. Private IPv4 Addresses
Relating to Binary
IP Address Classes
CIDR Notations / VLSM
eNotes: CIDR
Configuring IP Addresses Using Server Manager
Configuring IP Address Using a Command Line
Configure IP Address Using PowerShell
Demo - Configure IP Address Using PowerShell
TCP/IP Diagnostics
Network Card Teaming

Supernetting
Supernetting Examples
Overview Of IPv6
IPv4 vs IPv6
IPv6 Differences
Equivalents
IPv6 Addressing
Link Local Unicast Addresses
Host Private Address
Zone ID's
Converting Binary to Hex
Binary To Hex Examples
Things to Know About TCP/IPv6
Format Prefixes
Demo - Configuring IPv6 Client
IPv6 Over IPv4 Tunneling
Defining Capabilities: Node Types
Configure ISATAP
Host Configuration
6to4
Teredo
PortProxy
Transition Process
Module 07 Review

Module 08 - DHCP and DNS   1h 13m
DNS
DNS for Name Resolution
eNotes: How Names are Resolved – Iterative Queries
Link-Local Multicast Name Resolution
WINS
Single Label Names - WINS
Tools and Commands
Demo - Tools and Commands
DNS Terms to Know
DNS Zones
Dynamic Updates
DNS Server Cache and Forwarding
DNS Cache
DNS Records Required for IPv6 Coexistence
Troubleshooting Name Resolution
eNotes: Troubleshooting Name Resolution
DHCP
Dynamic Host Configuration Protocol (DHCP) Service
Lease Generation
DHCP Relay Agent
DHCP on Server Core
DHCP Installation
Demo - Install DHCP
Create and Configure Scopes IPv4

Create and Configure Scopes IPv6
DHCP Reservation
Common DHCP Options
Order Options are Assigned
Managing DHCP Database
Move DHCP Database
Securing DHCP and Unauthorized Computers
Configure Client and Server for PXE Boot
DHCP Audit Logging
Common Event Codes
DHCP Issues - Discussion
Module 08 Review

Module 09 - Overview of Active Directory Domain Services   3h 23m
Overview of Active Directory Domain Services
Physical Components of Active Directory
Logical Components of Active Directory
Domain Structures - Domain and Forest
Domain Structure - Forest
Domain Structure - Schema
Domain Structures - Logical
Default Containers and OU's
Domain Structures - Sites (Physical)
Components of Site Structure
Domain - Wide Scope
Overview of Domain Controllers
What Domain Controllers Do
Depreciated Features Server 2012 Related to AD DS
Global Catalog
Demo - Global Catalog
Operations Master Roles
Best Practices - FSMO and GC
Forest and Domain Functional Levels
Demo - Functional Levels and FSMO
Forest Functional Levels
ADPrep Commands
RODC
How DC's are Found and Used
Demo - SRV Records DNS
The AD DS Logon Process
Install Domain Controllers
DC Install Questions and Required Information
Required Information to Collect Pre-Install
Demo - Install Domain Controllers
Upgrading Domain Controllers
Clean Installation of Windows Server 2012 Domain Controllers
Install Domain Controller Using IFM
Demo - Remove A Domain Controller From A Domain
Active Directory Management Tools
User Accounts

Uniqueness of Accounts
Attributes of Users
Creating Account Templates
Locking vs. Disabled
Directory Service Command Line Tools
Groups
Group Scopes
Helpful Acronyms
E-Notes
Default Groups
Special Identities
Computer Accounts
Troubleshooting Computer Accounts
Troubleshooting Steps
Listing Group Membership
Delegate Management of Active Directory Objects
CSVDE for Exporting
CSVDE for Importing
Ldifde
Ldifde - Export
Ldifde - Import
Managing AD DS with PowerShell
Module 09 Review

Module 10 - Windows Security   1h 27m
Windows Security
Windows Security – Defense in Depth
Security Templates
Methods to Distribute Security Templates
User Rights
Demo - Local Security Policy
Auditing
Restricted Groups
Account Policies
Group Policy
GPO Locations - Content
Components of Group Policy
Group Policy Structure
Administrative Templates
ADM Files
Group Policy Central Store
Multiple Local Group Policies
Notes: Local Group Policies
Group Policy Preferences
Common Preferences
Starter GPO
GPO Permissions
Group Policy Processing
Inheritance
Default GPO's

Demo - Create a GPO
Software Restriction Policies
Basics: Software Restriction Policies
AppLocker
AppLocker Rules
Windows Firewall
Windows Firewall with Advanced Security
Enhancements Over Standard Windows Firewall
Firewall Profiles
Connection Security Rules
Deploy Firewall Rules
Configure Authenticated Firewall Exceptions
Module 10 Review
Course Closure

Total Duration: 15h 11m