

# 70-647: Windows Server Enterprise Administration

## **Course Introduction**

7m

Course Introduction

## **Chapter 01 - Planning for Active Directory**

2h 4m

### **Lesson 1: Logical Design**

The Forest

How Will AD DS be Used?

Requirements

How Many Forests are Needed?

Forest Model

Domains

Requirements (Cont.)

The Domain Model

How Many Domains?

Upgrade or Create New Domains

The First Domain

Functional Levels

Domain Functional Level Features

Functional Levels (Cont.)

Forest Functional Level Features

Schema

Working with Trusts

Demo - Creating a New Forest

Demo - Creating a New Tree

### **Lesson 2: Physical Topology**

Physical Networks

Review of Domain Controller Replication

Site Design Options

Site Replication Design

Site Links

Site Link Bridging

Site Replication Example

Domain Controller Placement

Printer Location Policies

Demo - Creating Sites and IP Subnets

Demo - Creating Site Link Bridges

Chapter 01 Review

## **Chapter 02 - Network Infrastructure**

1h 51m

### **Lesson 1: DNS**

DNS Considerations

DNS Record Types

Using DNS with Windows 2008 Server

The Stub Zone

DNS Options

Managing DNS

New DNS Features with Windows 2008 Server

Replacing WINS

IPv6 Support

Background Zone Loading

RODC

Designing the DNS Infrastructure  
Choosing a Zone Type  
Miscellaneous DNS Options  
Demo - Exploring DNS  
Demo - Creating GlobalNames Zone  
**Lesson 2: Planning IP Distribution**  
Introducing IPv6  
Examples of IPv6 Abbreviation  
Introducing IPv6 (Cont.)  
The IPv6 Multicast  
Advantages of IPv6  
IPv4 to IPv6 Compatibility  
Transitioning to IPv6  
IPv6 Tools  
Configure IPv6  
Verifying IPv6  
Troubleshooting  
Designing an IPv6 Network  
Demo - Configuring IPv6  
Demo - Testing IPv6  
Chapter 02 Review

## **Chapter 03 - Advanced Active Directory Issues**

32m

### **Lesson 1: Migration Strategies**

Planning and Preparing to Move to Windows 2008 Server  
Domain Upgrade  
Preparing for the Upgrade  
Domain Restructure  
Upgrade then Restructure  
Cross Forest Trust  
Demo - Raising Domain Functional Level

### **Lesson 2: Working with Other Forests**

One Solution: AD FS  
What is AD FS?  
AD FS Roles  
AD FS Example  
MS Identity Lifecycle Manager 2007 FP1  
Working with UNIX  
Imitating UNIX  
Migration of UNIX NIS to Windows NIS  
Imitating UNIX Continued  
Working with NFS  
Chapter 03 Review

## **Chapter 04 - Active Directory Administration**

1h 46m

### **Lesson 1: Active Directory Administration**

Delegation of Control  
Delegating Active Directory  
Data Management  
Service Management  
Scope of Delegated Administration  
Administration Models  
Using Groups for Delegation  
Management Roles  
Service Management (Cont.)  
Data Roles

Types of Trusts  
Delegation of Data Management  
Starter GPOs  
Group Policy Modeling  
Auditing AD DS  
AD Auditing  
Looking at the Organizational Structure  
Demo - Delegation of Control  
Demo - AD Auditing  
**Lesson 2: Using Group Policies**  
Understanding the Group Policy Infrastructure  
Guidelines for Planning GPOs  
GPOs and Active Directory  
Understanding Domains  
Domain Services Store  
Controlling Hardware Installation with GPOs  
Which GPO Settings Control Hardware Installation?  
AAA  
Stronger Authentication  
Fine-Grained Password Policies  
How to Use PSOs  
Demo - Creating PSO  
Chapter 04 Review

## **Chapter 05 - Deploying Windows 2008 to the Small/Medium Office**

1h 28m

### **Lesson 1: Small/Medium Office**

Services Needed in the Small/Medium Office  
The DSMGMT Service  
Components Often Needed in the ROBO  
Optional Components Used for the ROBO  
More on the Server Core  
Should You Install a Domain Controller?  
Other DC Options  
Services to Consider at the ROBO  
Communication Options  
WAN Connections  
Securing Traffic  
Tunnel Diagram Example

### **Lesson 2: Small/Medium Server Security**

Overview of Security  
Security Training  
Security at the Branch  
Server Hardening  
Secure Options for the ROBO  
RODC  
RODC Password Replication Policy  
RODC Operation  
Securing Data  
EFS  
BitLocker  
NAP  
Demo - Creating an RODC  
Demo - Using SCW  
Chapter 05 Review

## **Chapter 06 - Using Remote Desktop Services and Application Setup**

1h 3m

### **Lesson 1: Planning for Remote Desktop Services**

Planning and Deploying Remote Desktop Services

RDS Components

Demo - Installing Remote Desktop Services

### **Lesson 2: License Server**

Licensing

Types of Licenses

Maintaining the License Server

License Server Deployment

### **Lesson 3: Deploying Applications**

RDS Web Access

RemoteApp

RemoteApp Deployment

RDS Load Balancing

Planning RDS Gateway Servers

RDS Gateway Server Connection

Using GPO to Deploy Applications

Publishing Software

Assigning Software with GPOs

Installing Software by GPO

Deploying Software with SC Essentials

SCCM 2007

SCCM 2007 Architecture

SCCM 2007 Client

SCCM 2007 Application Deployment

Demo - Accessing RDS Web Access

Chapter 06 Review

## **Chapter 07 - Securing the Network**

1h 34m

### **Lesson 1: Designing a Secure Perimeter**

Designing the Perimeter

The Border Network

Perimeter Network

Internal Network

Perimeter Firewall

Firewall Options

ISA Server

ISA Server Deployment

What Else Can Be Found in the Perimeter?

Web Servers in the Perimeter

Setting Up Remote Access

VPN Tunneling Protocols

PPTP

L2TP

SSTP

Authenticating Connections

Securing VPN Servers

Authentication using RADIUS

Microsoft RADIUS

RADIUS Security

RADIUS Proxy Options

## **Lesson 2: Introducing NAP**

Network Access Protection

Where Do You Find NAP?

NAP Considerations

NAP Provides Another Layer of Security With IPSec

Disadvantages of NAP

NAP IPSec Enforcement

More NAP Component Needs

NAP VPN Enforcement

802.1X NAP Enforcement

802.1X Enforcement

NAP and DHCP

DHCP/NAP Considerations

NAP Illustrated

## **Lesson 3: Domain and Server Isolation**

Isolation

Domain Isolation

Comparing Server and Domain Isolation

Chapter 07 Review

## **Chapter 08 - Supporting PKI**

1h 24m

### **Lesson 1: What is PKI?**

Concepts

Applications Use of PKI

Certificate Use Illustration

Who is Issued a Certificate

PKI Security

Security Policies

Business Requirements

External Needs

AD Needs

### **Lesson 2: The CA Hierarchy**

The CA Infrastructure

CA Hierarchy Illustration

When to Use an Internal CA

When to Use an External CA

MS ADCS

Enterprise vs. Standalone

How Many CAs are Needed

Demo - Installing CA

### **Lesson 3: Managing Certificates**

Enrollment Methods

Enrollment Policies

Improving Control over Certificate Issuance

Automatic vs. Manual Certificate Approval

How to Do Enrollment

Certificate Renewal Strategies

Certificate Revocation Policy

Issues with CRLs

Publication Points

Demo - Working with Certificates

Chapter 08 Review

## **Chapter 09 - Virtualization Solutions**

51m

### **Lesson 1: Using Virtualization**

Benefits to Virtualization  
Virtualization Solutions  
Choosing What to Virtualize  
Managing Virtualized Servers  
What Can Be Virtualized  
Migrating P2V  
The Power of SCVMM  
SCVMM Components  
SCVMM Illustrated  
Managing VMs at the Branch Office  
Demo - Working With Hyper-V  
Demo - Creating a Virtual Windows 2008 Server

### **Lesson 2: Planning Virtualization for Applications**

Microsoft SoftGrid  
When Should You Use SoftGrid  
Designing Application Virtualization  
Branch Office Deployments  
Chapter 09 Review

## **Chapter 10 - Windows Updates**

1h 2m

### **Lesson 1: WSUS**

The Windows Server Update Services Infrastructure  
Consider WSUS  
Managing WSUS  
WSUS Design  
WSUS Administration  
Update Deployment  
WSUS Hierarchy Illustrated  
Policies for Updates  
Planning Automatic Approvals  
SC Essentials  
SCCM 2007  
Demo - Installing WSUS  
Demo - Exploring WSUS

### **Lesson 2: Software Update Compliance**

MBSA  
WSUS Reports  
SCCM 2007 Compliance and Reporting  
SCW  
SCWCMD  
Best Practices of Role Based Security Policies  
Demo - Using MBSA  
Chapter 10 Review

## **Chapter 11 - Making Data Secure and Available**

1h 38m

### **Lesson 1: Sharing and Collaborating Your Data**

DFS

Advanced DFS

DFS Replication, Settings, and Features

DFS Design Checklist

Collaboration

WSS Feature Set

WSS Deployment

MOSS 2007

Demo - Installing WSS

Demo - Exploring WSS

### **Lesson 2: Protecting Data at Rest**

BitLocker

BitLocker Authentication

BitLocker Design Thoughts

EFS

EFS Best Practices

AD RMS

Using RMS

RMS Policy Elements

RMS Illustrated

Demo - Using EFS

### **Lesson 3: System Recoverability and Availability**

AD DS Backup

AD DS Backup Utilities

AD DS Recovery

Authoritative Restore

Authoritative Restore Illustrated

AD DS Service

Working with FSMOs

Scalability

NLB

NLB Illustrated

Failover Clustering

Cluster Prerequisites

Demo - AD DS Backup

Chapter 11 Review

Course Closure

**Total Duration: 15hrs 19m**