MOC 10533 A Deploying, Configuring, and Administering MS Lync Server 2010

Course Summary

Description

This course teaches IT professionals how to deploy, configure, and administer a Microsoft Lync Server 2010 solution. The course emphasizes Lync Server 2010 Enterprise Voice features from a deployment and configuration perspective. The labs in this course build on each other to create a solution that includes IM and Presence, Conferencing, and Enterprise Voice. This course helps the student prepare for Exam70-664.

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

- Describe how the features and architecture of Microsoft Lync Server 2010 enable real time communication and collaboration
- Deploy Lync Server 2010
- Configure users and rights using Role Based Access Control (RBAC)
- Deploy and manage Lync 2010 clients
- Configure and manage external user access using the Edge server role
- Deploy basic Enterprise Voice functionality
- Extend Enterprise Voice functionality to include Trunk options, call park orbit, and the unassigned number feature
- Integrate Microsoft Exchange Server 2010 Service Pack 1 (SP1) Unified Messaging (UM) with Lync Server 2010
- Configure the Response Group Service, including agent groups, queues, and workflows
- Configure and manage conferencing
- Configure and use archiving and monitoring
- Perform backup and restore of Lync Server 2010 critical data
- Improve bandwidth management using Call Admission Control (CAC)
- Configure and deploy Enhanced 9-1-1
- Configure a Survivable Branch Server for a branch office

Topics

- Features and Architecture of Microsoft Lync Server 2010
- Deploying Microsoft Lync Server 2010
- Configuring Users and Rights in Microsoft Lync Server 2010
- Client and Device Deployment and Management
- External User Access
- Configuring Basic Enterprise Voice Functionality
- Extending Enterprise Voice Functionality
- Microsoft Exchange Server 2010 SP1 Unified Messaging (UM) Integration
- Implementing Response Groups
- Conferencing in Microsoft Lync Server 2010
- Monitoring and Archiving
- High Availability and Disaster Recovery in Microsoft Lync Server 2010
- Call Admission Control
- Deploying and configuring Enhanced 9-1-1
- Voice Resiliency Features of Lync Server 2010

Audience

This course is intended for IT professionals and telecommunications professionals who want to learn how to install, configure, manage and maintain a Microsoft Lync Server 2010 environment. These professionals should have at least 3 years' experience working with unified communications software, including knowledge of and experience with Microsoft Office Communications Server 2007 R2.

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Course Summary (cont'd)

Prerequisites

In addition to their professional experience, students who attend this training should have an understanding of the following telecommunications concepts:

- The difference between TDM and VoIP
- Gateways and PBX
- Session Initiation Protocol (SIP)
- Codecs
- Dialing plans

Students should also understand the following general concepts:

- Networking fundamentals, including TCP/IP/UDP, DNS
- Active Directory principles and management
- Windows Server 2008 fundamentals
- Public Key Infrastructure (PKI)
- Exchange Messaging concepts
- PowerShell basics
- SQL Server concepts and operation

Duration

Five days

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Course Outline

I. Features and Architecture of Microsoft Lync Server 2010

This module introduces the architecture and topology of Lync Server 2010. It also explains a high-level overview of Lync Server 2010 features and capabilities, including enhanced social networking capabilities, and the improved administrative experience provided by the Central Management Store and the Lync Server Control Panel. Additionally, it provides an overview of the new Topology Builder tool.

A. Features of Lync Server 2010
B. Architecture and Server Roles
C. Management Tools

After completing this module, students will be able to:

- Describe the features and capabilities of Lync Server 2010
- Describe the architecture and server roles of Lync Server 2010
- Describe the management tools of Lync Server 2010

II. Deploying Microsoft Lync Server 2010

This module introduces the planning and implementation tasks necessary deploying Microsoft Lync Server 2010 Enterprise Edition. It also explains the Lync Server 2010 infrastructure requirements, the topology design and publishing process, as well as the steps required to prepare Microsoft Active Directory Domain Services (AD DS), deploy a Front End server and pool, and prepare for the deployment of the remaining server roles.

A. Preparing for Deployment
B. Reviewing the Design Process
C. Deploying Lync Server 2010

Lab: Preparing the Environment and Deploying a Lync Server 2010 Pool

- Exercise 1: Preparing for Lync Server 2010
- Exercise 2: Configuring a Lync Server 2010 Topology
- Exercise 3: Publishing a Topology and Deploying a Front End Server
- Exercise 4: Validating the Topology

After completing this module, students will be able to:

- Prepare for the deployment of Lync Server 2010
- Review the design process
- Deploy Lync Server 2010

III. Configuring Users and Rights in Microsoft Lync Server 2010

This module explains how to configure and manage users in Lync Server 2010. It describes the configuration management options in Lync Server 2010, including the Lync Server Control Panel and the Lync Server Management Shell. It also covers the basic syntax for working in Microsoft Windows PowerShell. Additionally, it describes the Role Based Access Control (RBAC) administrative model in Lync Server 2010, and highlights the predefined roles and the process to create new custom roles.

A. Managing Lync Server 2010
B. Role Based Access Control

Lab: Configuring Users and Rights

- Exercise 1: Using the Lync Server Control Panel
- Exercise 2: Using the Lync Server Management Shell
- Exercise 3: Configuring Role Based Access Control

After completing this module, students will be able to:

- Use Lync Server 2010 management interfaces
- Configure Role Based Access Control

IV. Client and Device Deployment and Management

This module explains how to effectively manage desktop clients and devices in a Microsoft Lync Server 2010 environment. It describes how to create and define client and user policies in Lync Server 2010, as well as new procedures for deploying clients and devices.

A. Preparing for Client Deployment
B. Deploying Lync 2010 Clients
C. Preparing for Device Deployment
D. Deploying and Managing IP Phones

Lab: Client and Device Management

- Exercise 1: Creating and Assigning Client Policies
- Exercise 2: Creating and Assigning Device Policies
- Exercise 3: Configuring Device Update

After completing this module, students will be able to:

- Prepare for client deployment
- Deploy and manage clients
- Prepare for device deployment
- Deploy and manage IP phones

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V. External User Access
This module explains how to support external access in a Microsoft Lync Server 2010 deployment. It describes the features and functionality of the Edge Server that support user communication and collaboration with external users, and internal user access to public IM services. Additionally it explains how to configure network routing for the Edge Server, obtain and install certificates, and create and modify Access Edge Policies for federated, remote, and public scenarios.

A. Edge Server Role
B. Topologies for External User Access
C. Preparing for External User Access
D. Edge Server Deployment Process

Lab: Deploying External User Access

- Exercise 1: Configuring the Topology for External Access
- Exercise 2: Deploying Edge Server and Configuring Remote Access
- Exercise 3: Testing and Verifying External User Access

After completing this module, students will be able to:

- Define the Edge Server role
- Consider topologies for external user access
- Deploy Edge Server

VI. Configuring Basic Enterprise Voice Functionality
This module provides an overview of the major components, features and topology requirements of Microsoft Lync Server 2010 Enterprise Voice. It explains the capabilities and components that are new or enhanced in Lync Server 2010. It also describes how to prepare, configure, and deploy basic Enterprise Voice functionality.

A. Features of Lync Server 2010 Enterprise Voice
B. Preparing for Enterprise Voice
C. Deploying Enterprise Voice

Lab: Configuring Basic Enterprise Voice Functionality

- Exercise 1: Configuring Topology for Enterprise Voice
- Exercise 2: Configuring Lync Server 2010 Enterprise Voice
- Exercise 3: Configuring Voice Policies and PSTN Usages

After completing this module, students will be able to:

- Describe the features of Lync Server 2010 Enterprise Voice
- Prepare for the deployment of Lync Server 2010 Enterprise Voice Functionality
- Deploy and configure Lync Server 2010 Enterprise Voice Functionality

VII. Extending Enterprise Voice Functionality
This module explains how to configure policies, routes, and usage records. It also describes how to implement the call park and unassigned number features.

A. Configuring Enterprise Voice
B. Introducing Call Park
C. Introducing the Announcement Service

Lab: Implementing Enterprise Voice

- Exercise 1: Configuring Routes and Site Trunks
- Exercise 2: Configuring Call Park
- Exercise 3: Configuring the Unassigned Number Feature
- Exercise 4: Configure Users for Enterprise Voice
- Exercise 5: Testing and Verifying Enterprise Voice Functionality

After completing this module, students will be able to:

- Configure Enterprise Voice Functionality
- Introduce the Call Park feature into your Enterprise Voice Deployment of Microsoft Lync Server 2010
- Introduce the Unassigned Number feature into your Enterprise Voice Deployment of Lync Server 2010

VIII. Microsoft Exchange Server 2010 SP1 Unified Messaging (UM) Integration
This module describes the prerequisites for integrating Exchange Server 2010 UM with Lync Server 2010. It also explains how to create and configure a UM dial plan. Additionally, it covers how to use the tools and services needed to integrate Exchange Server 2010 UM with Lync Server 2010. Finally it explains how to enable a user for UM integration with Lync Server 2010.

A. Prerequisites for Integrating Exchange Server 2010 SP1 UM with Lync Server 2010
B. Integrating Exchange Server 2010 SP1 UM with Lync Server 2010

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Lab: Integrating Exchange Server 2010 SP1 Unified Messaging with Lync Server 2010

- Exercise 1: Configuring Exchange Server 2010 SP1
- Exercise 2: Configuring Lync Server 2010 Interoperability with Exchange Server 2010 SP1

After completing this module, students will be able to:

- Perform the necessary tasks to prepare for the integration of Exchange Server 2010 SP1 Unified Messaging with Lync Server 2010
- Integrate Exchange Server 2010 SP1 Unified Messaging with Lync Server 2010

Implementing Response Groups

This module introduces the Response Group Service and the changes that have been implemented with Microsoft Lync Server 2010. It describes RGS components, including queues, agent groups, workflows, and interactive workflows. It also explains how to use tools such as Lync Server Control Panel, Lync Server Management Shell, and Response Group Configuration Tool to manage workflows.

A. Overview of the Response Groups Service and its Application
B. Response Group Service Components
C. Response Group Service Management Tools

Lab: Configuring the Microsoft Lync Server 2010 Response Group Service

- Exercise 1: Configuring Agents Groups and Queues
- Exercise 2: Configuring Workflows
- Exercise 3: Verifying the Response Group Service Behavior

After completing this module, students will be able to:

- Describe the function of the Response Group Service and its new features
- Describe the components of the Response Group Service and their settings
- Describe the tools used to configure and manage response groups

Conferencing in Microsoft Lync Server 2010

This module introduces conferencing in Lync Server 2010. It also explains dial-in conferencing in Lync Server 2010 and how to manage and administer conferencing policies.

A. Introduction to Conferencing in Lync Server 2010
B. Dial-In Conferencing in Lync Server 2010
C. Managing and Administering Conferencing Policies

Lab: Conferencing Configuration and Deployment

- Exercise 1: Configuring Dial-In Conferencing
- Exercise 2: Configuring Conferencing Policies
- Exercise 3: Experiencing Lync Server 2010 Conferencing

After completing this module, students will be able to:

- Describe the conferencing modes in Lync Server 2010
- Describe the Lync Server 2010 conferencing features
- Discuss the conferencing architecture and infrastructure components
- Explain conferencing call flows
- Explain the conferencing deployment and migration considerations

IX. Monitoring and Archiving

This module describes the features and configuration of the Monitoring and Archiving services. It also explains how to interpret the Quality of Experience (QoE) reports and use this information to better manage and deliver a high-quality user experience for Microsoft Lync Server 2010.

A. Describing the Archiving Service
B. Describing the Monitoring Service
C. Configuring Archiving and Monitoring

Lab: Configuring and Using Archiving and Monitoring in Lync Server 2010

- Exercise 1: Configuring the Archiving Server Role
- Exercise 2: Configuring the Monitoring Server Role and the Lync Server Monitoring Reports
- Exercise 3: Exploring the Lync Server Monitoring Reports

After completing this module, students will be able to:

- Describe the archiving service
- Describe the monitoring service
- Configure the archiving and monitoring services

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X. High Availability and Disaster Recovery in Microsoft Lync Server 2010
This module explains the requirements for high availability as well as the requirements for the Domain Name System (DNS) load balancing feature. It also describes the tools and methods for successfully backing up and restoring a Lync Server 2010 environment. Additionally, it explains how to backup and restore and export and import critical Lync Server 2010 data.

A. Options for High Availability
B. Tools for Backing Up and Restoring Lync Server 2010
C. Exporting and Importing Critical Lync Server Data
D. Backing up and Restoring Critical Lync Server Data

Lab: Preparing for a Disaster and Recovering

- Exercise 1: Using System and Application Tools to Backup Lync Server 2010
- Exercise 2: Using Lync Server 2010 Tools to Backup Lync Server 2010
- Exercise 3: Restoring Lync Server 2010

After completing this module, students will be able to:

- Describe the high availability options
- Describe the tools for backing up and restoring Lync Server 2010
- Export and import critical Lync Server 2010 data
- Backup and restore critical Lync Server 2010 data

Call Admission Control
This module introduces Call Admission Control (CAC) in Lync Server 2010 and describes the various components. It explains how to deploy and use CAC bandwidth management to help prioritize and control allocation of network resources to real-time communications sessions.

A. Overview of CAC Functionality
B. Implementing CAC

Lab: Implementing Call Admission Control

- Exercise 1: Configuring CAC Components
- Exercise 2: Verifying Bandwidth Policy

After completing this module, students will be able to:

- Describe an overview of CAC features and functionality
- Configure and implement Call Admission Control

XI. Deploying and configuring Enhanced 9-1-1
This module introduces Location Information Server (LIS), which builds on Enhanced 9-1-1, technology to provide location information to users of a network. It explains how to deploy and configure LIS for use with or without Enhanced 9-1-1.

A. Enhanced 9-1-1
B. Deploying and Configuring Enhanced 9-1-1

Lab: Configuring the Lync Server 2010 Location Information Service for Enhanced 9-1-1 Calling

- Exercise 1: Creating Emergency Routes and PSTN Usages
- Exercise 2: Defining LIS Locations
- Exercise 3: Experiencing LIS Features

After completing this module, students will be able to:

- Explain the function, features, components, and requirements of Enhanced 9-1-1
- Deploy and configure Enhanced 9-1-1

XII. Voice Resiliency Features of Lync Server 2010
This module describes the voice resiliency features of Lync Server 2010. It explains how voice resiliency is used to provide continuous Enterprise Voice service so that users can continue making and receiving calls, even if the central site or the WAN link from a branch to its central site becomes unavailable. It also explores multiple failure scenarios such as central site failover, branch site failover, and WAN failover.

A. Voice Resiliency in Lync Server 2010
B. Features Available During Various Outage Scenarios

Lab: Implementing Voice Resiliency in Lync Server 2010

- Exercise 1: Configuring a Survivable Branch Server
- Exercise 2: Testing and Verifying Branch Office Voice Resiliency with WAN Outage
- Exercise 3: Testing and Verifying Branch Office Voice Resiliency with Pool Outage

After completing this module, students will be able to:

- Explain voice resiliency in Lync Server 2010
- Explain the features available during various outage scenarios

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