MOC 10534 (A) Planning and Designing a Microsoft Lync Server 2010 Solution

Course Summary

Description

This course teaches how to plan and design a Microsoft Lync Server 2010 solution to IT professionals. The course emphasizes Voice features in Lync 2010 from a deployment perspective. In this course, students learn how to plan and design a Lync Server 2010 system. The labs in this course utilize the Lync Server 2010 Planning Workbook and Planning Tool. This course helps the student prepare for Exam 70-665.

Objectives

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

- Describe the Lync Server 2010 design process.
- Design a Lync Server 2010 topology.
- Design for conferencing and external scenarios.
- Design for load balancing.
- Design voice infrastructure.
- Design a Mediation Server topology.
- Create a network design for Lync Server 2010.
- Design Response Group Services.
- Design for Location Services.
- Design Exchange Unified Messaging Integration with Lync Server 2010.
- Design for resiliency.
- Design for backup and disaster recovery.
- Design for monitoring and archiving.
- Plan a migration to Lync Server 2010.

Topics

- Overview of the Lync Server 2010 Design Process
- Designing a Lync Server 2010 Topology
- Designing for Conferencing and External Scenarios
- Planning and Designing Load Balancing
- Designing a Mediation Server Topology
- Designing Voice Infrastructure
- Creating a Network Design for Lync Server 2010
- Designing Response Group Services
- Designing Location Services in Lync Server 2010
- Designing Exchange Server Unified Messaging Integration with Lync Server 2010
- Designing Resiliency
- Designing Backup and Disaster Recovery
- Designing Monitoring and Archiving
- Planning a Migration to Lync Server 2010

Audience

The audience for this course is information technology (IT) professionals who are experienced on Lync Server 2010 technologies and who have a Technical Specialist certification on the course, Configuring and Managing Microsoft Lync Server 2010, or equivalent knowledge. Students taking this course are expected to have experience in hands-on deployment and day-to-day management of Unified Communications technologies for enterprise organizations.

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Course Summary (cont'd)

Prerequisites

The students should have experience in core Lync Server 2010 technology with specialist skills in:

- Features and architecture
- Dial plans
- External User Access and Federation
- Security
- High Availability
- Load Balancing
- Resiliency
- Capacity
- Bandwidth management
- Central and Branch Office Sites
- Enterprise Voice
    - Call Management
    - Audio/Web/Dial-in Conferencing
    - Topology options including services, server roles, co-location and geographical placement

Apart from this, students should have knowledge on Windows Server Active Directory deployment and should have attended the TS level Course 10533A: Configuring and Managing Microsoft Lync Server 2010 or possess equivalent experience or skills.

Duration

Five days

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Course Outline

I. Overview of the Lync Server 2010 Design Process

This module explains all components of Lync Server 2010 architecture. It also describes the design process for a Lync Server 2010 design.

A. Overview of Lync Server 2010 Architecture
B. Overview of Lync Server 2010 Core Capabilities
C. Introduction to the Lync Server 2010 Design Process
D. Assessing Infrastructure Requirements and Updating Design
E. Planning for all Microsoft Solutions Framework Phases

After completing this module, students will be able to:

- Describe the Lync Server 2010 architecture.
- Describe the Lync Server 2010 core capabilities.
- Explain the Lync Server 2010 design process.
- Assess the infrastructure requirements and update the Lync Server 2010 design.
- Plan for all Microsoft solutions framework phases.

II. Designing a Lync Server 2010 Topology

This module describes how to design a complete Lync Server 2010 topology including defining network sites and regions, sizing and placing server roles, and adhering to organization compliance requirements.

A. Planning Infrastructure Requirements for Lync Server 2010
B. Using the Lync Server 2010 Planning Tool
C. Using Topology Builder
D. Planning for Site Topology
E. Designing the Site Topology
F. Planning the Server Infrastructure
G. Design Documentation Using Microsoft Office

Lab: Designing a Lync Server 2010 Topology

- Completing the Lync Server Planning Workbook
- Evaluating the Current Topology XML
- Creating a New Topology XML

After completing this module, students will be able to:

- Plan infrastructure requirements for Lync Server 2010.
- Use the Lync Server 2010 Planning Tool.
- Use Topology Builder.
- Plan for site topology.
- Design for site topology.
- Plan the server infrastructure.
- Create a design documentation using Microsoft office.

III. Designing for Conferencing and External Scenarios

This module describes how to plan and design for all the external scenarios including Edge Server design and the different conferencing modalities that are provided for internal and external users.

A. Conferencing and External Capabilities of Lync Server 2010
B. Designing for Dial-In Conferencing
C. Designing for Audio/Video and Web Conferencing
D. Planning for IM and Presence Federation
E. Designing Edge Services
F. Planning for DNS implementation
G. Planning for PKI Implementation

Lab: Designing for Conferencing and External Scenarios

- Reviewing the business or technical requirements
- Exploring the Edge Deployment Using the Lync Planning Wizard
- Validating Edge Server

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Course Outline (cont'd)

After completing this module, students will be able to:

- Describe conferencing and external capabilities of Lync Server 2010.
- Design for dial-in conferencing.
- Design for audio/video and web conferencing.
- Plan for IM and presence federation.
- Design Edge services.
- Plan for DNS implementation
- Plan for PKI implementation.

IV. Planning and Designing Load Balancing

This module explains how to create a Load Balancing Design based on the topology design that can deliver both the capacity and the failover requirements for an organization.

A. Planning for Load Balancing
B. Designing Load Balancing

Lab: Planning and Designing Load Balancing

- Reviewing the Existing Requirements for Load Balancing Lync Servers
- Designing a DNS Load Balanced Solution for the Selected Areas
- Reviewing the Planning Workbook for Load Balancing Related Items

After completing this module, students will be able to:

- Plan for load balancing.
- Design load balancing.

V. Designing a Mediation Server Topology

This module explains how to configure Server Virtualization by using Hyper-V. It explains the features of Hyper-V. It also describes how to configure Live Migration in Hyper-V and how to effectively use System Center Virtual Machine Manager R2.

A. Designing Mediation Server
B. Designing Media Bypass

Lab: Designing a Mediation Server Topology

- Reviewing the Current Lync Server 2010 Design
- Defining and Publishing a Mediation Server

After completing this module, students will be able to:

- Design Mediation Server.
- Design Media ByPass.

VI. Designing Voice Infrastructure

This module explains how to design a Voice infrastructure that meets the needs of the organization and integrates with or replaces an existing Voice Platform.

A. Introduction to Lync Server 2010 Voice Architecture
B. Lync Server 2010 Telephony Interoperability Options
C. Defining Number Manipulation
D. Defining Voice Policies
E. Designing a Voice Routing Solution
F. Address Book Service in Lync Server 2010

Lab: Designing Voice Infrastructure

- Analyzing the Existing Voice Infrastructure
- Creating Dial Plans and Normalization Rules for the Current Infrastructure and International Site
- Creating Voice Policies for the Current Infrastructure and International Site
- Creating Routes for the Current Infrastructure
- Creating PSTN Usage Records for the Current Infrastructure and International Site
- Group Discussion

After completing this module, students will be able to:

- Describe the Lync Server 2010 architecture.
- Explain Lync Server 2010 Telephony Interoperability options
- Define number manipulations.

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Course Outline (cont'd)

- Define voice policies
- Design a Voice Routing solution
- Explain Address Book Service in Lync Server 2010

VII. Creating a Network Design for Lync Server 2010
This module explains how to calculate the expected bandwidth usage, and design and implement a Call Admission Control solution.

A. Planning for Media Requirements
B. Planning for Bandwidth Based on Usage
C. Planning for Call Admission Control
D. Designing Call Admission Control

Lab: Creating a Network Design for Lync Server 2010

- Reviewing the Existing infrastructure
- Documenting the Steps to Plan for the Call Admission Control Policies
- Gathering the Required Information for the Network Layout
- Discussing How to Design CAC

After completing this module, students will be able to:

- Plan for media requirements.
- Plan for bandwidth based on usage.
- Plan for Call Admission Control.
- Design Call Admission Control.

Designing Response Group Services
This module explains how to assess the requirements for and design Response Group Services for advanced scenarios. This module includes a review of the Response Group Services features and functionality.

A. Overview of the Response Group Services
B. Planning for Response Group Services
C. Designing Response Group Services

Lab: Designing Response Group Services

- Configuring BranchCache in Distributed Cache Mode
- Configuring BranchCache in Hosted Cache Mode
- Configuring Read-Only DFS Replica

After completing this module, students will be able to:

- Describe Response Group Services.
- Plan for Response Group Services.
- Design Response Group Services.

VIII.Designing Location Services in Lync Server 2010
This module explains how to assess the requirements for Emergency Services and how to plan for, and design Emergency Services in Lync Server 2010. This module discusses location information from an international perspective.

A. Planning for Location Services
B. Designing Location Services

Lab: Designing Location Services in Lync Server 2010

- Reviewing the E911 Deployment Process
- Creating the Vision and Scope Document for E911 Deployment
- Discussing Various Areas of Importance in a LIS Design

After completing this module, students will be able to:

- Plan for Location Services.
- Design Location Services.

IX. Designing Exchange Server Unified Messaging Integration with Lync Server 2010
This module explains how to evaluate the business requirements for an Exchange 2010 voice mail solution. This module describes how to design an integrated solution that includes both Exchange Server Unified Messaging and Lync Server 2010.

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Course Outline (cont'd)

A. Overview of Exchange Server 2010 Unified Messaging
B. Planning a Voice Mail Solution for Lync Server 2010
C. Designing a Voice Mail Solution for Lync Server 2010

Lab: Designing Exchange Server Unified Messaging Integration with Lync Server 2010

- Reviewing the Current Voice Mail Requirements
- Designing a Voice Mail Solution for Lync Server 2010

After completing this module, students will be able to:

- Describe Exchange Server 2010 Unified Messaging.
- Plan a Voice Mail solution for Lync Server 2010.
- Design a Voice Mail solution for Lync Server 2010.

X. Designing Resiliency

This module explains how to plan and design resiliency for Lync Server 2010 deployment with IM, Presence, Conferencing, and Voice.

A. Planning Site Resiliency
B. Designing Site Resiliency
C. Designing System Monitoring

Lab: Designing Resiliency

- Planning for Resiliency
- Creating a Global Resiliency Configuration

After completing this module, students will be able to:

- Plan site resiliency.
- Design site resiliency.
- Design system monitoring.

XI. Designing Backup and Disaster Recovery

This module explains how to design backup and disaster recovery for Lync Server 2010.

A. Designing a Backup and Restore Strategy
B. Lync Server 2010 Backup and Recovery Considerations

Lab: Designing Backup and Disaster Recovery

- Listing the Components and Tools Required for Restoration and Backups
- Reviewing the Components Required to Recover Data
- Group Discussion

After completing this module, students will be able to:

- Design a backup and restore strategy
- Explain Lync Server 2010 backup and recovery considerations.

XII. Designing Monitoring and Archiving

This module explains how to design monitoring and archiving server topologies for Lync Server 2010.

A. Designing Monitoring Server Topology
B. Designing Archiving Server Topology

Lab: Designing Monitoring and Archiving

- Reviewing the Current Lync Server 2010 Design
- Gathering a Reporting Package
- Designing an Archiving Solution
- Creating a List of SQL Queries

After completing this module, students will be able to:

- Design Monitoring Server topology.
- Design Archiving Server topology.

Planning a Migration to Lync Server 2010

This module explains how to analyze the current infrastructure and plan a Lync Server 2010 design and based on that design a coexistence and migration strategy for existing voice infrastructure and Office Communications Server 2007 R2. This module describes a migration strategy for clients and devices.

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Course Outline (cont'd)

A. Overview of Coexistence and Migration
B. Designing a Migration Strategy
C. Planning for Clients and Devices
D. Designing a Client Migration and Device Migration Strategy

Lab: Planning a Migration to Lync Server 2010

- Creating a Migration Plan
- Documenting the Migration Phases
- Creating a Task List of the Migration to Lync Server 2010

After completing this module, students will be able to:

- Describe coexistence and migration.
- Plan a migration strategy.
- Plan for clients and devices.
- Design a client migration and device migration strategy.

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