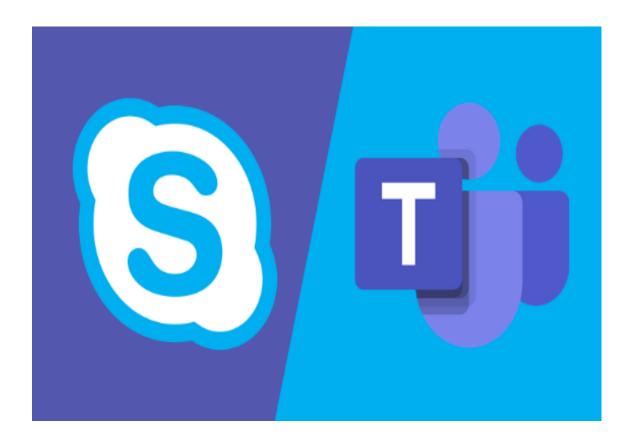# TechyEdz Solutions

Training | Consulting | Developement | Outsourcing

Microsoft Skype for Business

Core Solutions Microsoft Skype for Business 2015/2019 Certification Training

⬥ Course Overview:

This course provides students with the knowledge and skills required to plan, deploy, configure, and administer a Microsoft Skype for Business solution. Students will learn how to deploy a multi-site and highly available Skype for Business infrastructure that supports instant messaging (IM), conferencing, enterprise voice, archiving, and monitoring. Students will also learn how to manage, maintain, and troubleshoot issues in the infrastructure.

This course focuses primarily on the on-premises deployment of Skype for Business but does include information on how to integrate the on-premises deployment with Teams or Skype for Business Online as well as how to migrate from previous versions of Skype for Business Server. This course helps the students prepare for Exam 70-334

⬥ Course Outline:

Module 1: Design and architecture of Skype for Business Server

This module describes the high-level components and features of Skype for Business. It describes how to work with the Skype for Business administrative tools.

Lessons

- ➢ Overview of Skype for Business components and features
- ➢ Introduction to the Skype for Business administrative tools

Lab : Designing and publishing a Skype for Business server topology

- ➢ Designing and creating the topology
- ➢ Updating the topology for the New York site

After completing this module, students will be able to:

- ➢ Describe the high-level components and features of Skype for Business.
- ➢ Work with Skype for Business administrative tools.

Module 2: Installing and Implementing Skype for Business Server

This module explains the external dependencies for Skype for Business Server. It describes the Session Initiation Protocol (SIP) domain requirements to ensure a successful implementation. It also explains how to install Skype for Business Server and describes how Skype for Business Server integrates with Exchange Server and Microsoft SharePoint Server.

Lessons
- ➢ Server and Service Dependencies
- ➢ Planning SIP Domains
- ➢ Installing Skype for Business Server
- ➢ Integrating Skype for Business Server with Exchange Server and SharePoint Server

Lab : Configuring DNS and Simple URLs for Skype for Business Server
- ➢ Configuring the Required DNS Records and Simple URLs for Skype for Business Server

Lab : Deploying Skype for Business Server
- ➢ Installing and Configuring Skype for Business Server
- ➢ Installing Skype for Business Server Certificates
- ➢ Updating Skype for Business Server

After completing this module, students will be able to:

- ➢ Identify the external dependencies for Skype for Business Server.
- ➢ Identify the Session Initiation Protocol (SIP) domain requirements to ensure a successful implementation.
- ➢ Install Skype for Business Server.
- ➢ Describe how Skype for Business Server integrates with Microsoft Exchange Server and Microsoft SharePoint Server.

Module 3: Administering Skype for Business Server

This module explains how to administer and manage Skype for Business Server by using Skype for Business Server Control Panel and the Skype for Business Server Management

Shell. It also explains how to implement role-based access control (RBAC) in Skype for Business Server and how to use important Test cmdlets and tools to troubleshoot Skype for Business.

Lessons

- ➢ Skype for Business Server Control Panel
- ➢ Skype for Business Server Management Shell
- ➢ Implementing Role-Based Access Control
- ➢ Using Test Cmdlets
- ➢ Tools for Troubleshooting Skype for Business

Lab : Using the Administrative Tools to Manage Skype for Business Server

- ➢ Installing the Skype for Business Control Panel on a Windows 10 Client
- ➢ Using Skype for Business Server Control Panel
- ➢ Using the Skype for Business Server Management Shell

Lab : Using the Skype for Business Troubleshooting Tools

- ➢ Using Skype for Business Server Management Shell Cmdlets to Create an RBAC Structure
- ➢ Using the Centralized Logging Service
- ➢ Performing a Network Capture by Using Message Analyzer

After completing this module, students will be able to:

- ➢ Administer Skype for Business Server by using the Skype for Business Server Control Panel.
- ➢ Manage Skype for Business Server by using the Skype for Business Server Management Shell.
- ➢ Implement RBAC in Skype for Business Server.
- ➢ Explain how to use important Test cmdlets.
- ➢ Use the various tools to troubleshoot Skype for Business.

Module 4: Configuring Users and Clients in Skype for Business

This module explains how to configure users by using Skype for Business Server Control Panel and the Skype for Business Server Management Shell. It then describes how to deploy Skype for Business clients and explains the sign-in, registration, and authentication process

for Skype for Business clients. It also explains how to configure client policies in Skype for Business Server. Finally, it explains how to manage the Skype for Business Address Book.

Lessons

- ➤ Configuring Users
- ➤ Deploying the Skype for Business Client
- ➤ The Registration, Sign-In, and Authentication Processes
- ➤ Configuring Skype for Business Client Policies
- ➤ Managing the Skype for Business Address Book

Lab : Configuring Users and Clients in Skype for Business

- ➤ Enabling Users for Skype for Business by Using the Management Shell
- ➤ Troubleshooting a User Sign-In Issue

Lab : Configuring Policies and the Address Book in Skype for Business Server

- ➤ Configuring Client Policies
- ➤ Configuring the Address Book

After completing this module, students will be able to:

- ➤ Configure users for Skype for Business.
- ➤ Deploy Skype for Business clients.
- ➤ Explain the registration, authentication, and sign-in processes for Skype for Business clients.
- ➤ Configure client policies in Skype for Business Server.
- ➤ Manage the Skype for Business Address Book.

Module 5: Configuring and Implementing Conferencing in Skype for Business

This module describes Skype for Business conferencing features and modalities. It explains how to integrate Skype for Business Server 2015 with Office Online Server. It also explains how to plan for conferencing bandwidth utilization. Finally, it explains how to configure conferencing settings and policies.

Lessons

- ➤ Introduction to Conferencing in Skype for Business

- ➤ Integrating Skype for Business Server and Office Online Server
- ➤ Bandwidth Planning
- ➤ Configuring Conferencing Settings

Lab : Installing and Configuring Office Online Server

- ➤ Installing Office Online Server

Lab : Configuring Conferencing in Skype for Business Server

- ➤ Configuring, Assigning, and Validating Conferencing Policies

After completing this module, students will be able to:

- ➤ Describe Skype for Business conferencing features and modalities.
- ➤ Integrate Skype for Business Server with Microsoft Office Online Server.
- ➤ Plan for conferencing bandwidth utilization.
- ➤ Configure conferencing settings and policies.

Module 6: Implementing Additional Conferencing Options in Skype for Business Server

This module explains the conferencing lifecycle. It also explains how to implement audio/video and Web conferencing policies and configure dial-in conferencing. Finally, it explains how to configure Microsoft Teams Rooms and configure large meetings and Skype meeting broadcasts.

Lessons
- ➤ Overview of the Conferencing Life Cycle
- ➤ Designing and Configuring Audio/Video and Web Conferencing Policies
- ➤ Deploying Dial-in Conferencing
- ➤ Configuring Miccrosoft Teams Rooms
- ➤ Configuring Large Meetings and Skype Meeting Broadcasts

Lab : Implementing and Troubleshooting Conferencing Policies

- ➤ Creating and Editing Conferencing Policies
- ➤ Troubleshooting Conferencing Policies

Lab : Configuring Additional Conferencing Modalities

- ➢ Deploying Dial-In Conferencing
- ➢ Deploying Microsoft Teams Rooms with Skpe for Buisness Server

After completing this module, students will be able to:

- ➢ Explain the conferencing lifecycle.
- ➢ Implement audio/video and Web conferencing policies.
- ➢ Configure dial-in conferencing.
- ➢ Configure Microsoft Teams Rooms.
- ➢ Explain how to configure large meetings and Skype meeting broadcasts.

Module 7: Designing and Implementing Monitoring and Archiving in Skype for Business

This module describes the components of the monitoring service in Skype for Business Server, and how to implement archiving in Skype for Business Server. It then describes how to design and implement an archiving policy.

Lessons
- ➢ Components of the Monitoring Service
- ➢ Implementing Archiving
- ➢ Designing an Archiving Policy
- ➢ Implementing an Archiving Policy

Lab : Implementing Monitoring

- ➢ Enabling Monitoring Reports

Lab : Implementing Archiving

- ➢ Experiencing Archiving of an IM Session to Exchange

After completing this module, students will be able to:

- ➢ Describe the components of the monitoring service in Skype for Business Server.
- ➢ Implement archiving in Skype for Business Server.
- ➢ Explain how to design an archiving policy.
- ➢ Explain how to implement an archiving policy.

Module 8: Deploying Skype for Business External Access

This module describes the modalities for external access and capabilities for remote users. It also explains how to implement External Access Policies and security to meet the needs of an organization. Additionally, it explains how to manage external network configurations and create and manage reverse proxy configurations. Finally, it explains how to design and manage the mobility service and how to design and configure federation.

Lessons

- External Access Overview
- Configuring External Access Policies and Security
- Configuring External Access Network and Certificates
- Configuring Reverse Proxy
- Designing Mobility in Skype for Business Server
- Designing Federation in Skype for Business Server

Lab : Designing and Implementing External User Access

- Defining the Edge Server in the Topology
- Installing and Configuring the Edge Server

Lab : Installing the Components for External Users

- Installing and Configuring Reverse Proxy
- Validate External Messaging

After completing this module, students will be able to:

- Describe the modalities for external access and capabilities for remote users.
- Implement External Access Policies and security to meet the needs of an organization.
- Manage external network configurations.
- Create and manage reverse proxy configurations.
- Explain how to design and manage the mobility service.
- Explain how to design and configure federation.

Module 9: Implementing Enterprise Voice in Skype for Business Server

This module explains how to connect to a PSTN. It then explains how to configure and manage Enterprise Voice. It also describes voice routing. Finally, it explains how to assign phone numbers, configure voicemail, and configure voice applications.

Lessons

- ➤ Connecting to the PSTN
- ➤ Configuring Enterprise Voice
- ➤ Configuring Voice Routing
- ➤ Assigning Phone Numbers
- ➤ Configuring Voicemail
- ➤ Voice Applications

Lab : Deploying and Configuring Enterprise Voice

- ➤ Deploying Enterprise Voice
- ➤ Configuring Dial Plans
- ➤ Configuring a Voice Route, Voice Policy, PSTN Usage, and Trunk Configuration
- ➤ Assigning User Dial Plans and Policies

After completing this module, students will be able to:

- ➤ Describe how to connect to a PSTN.
- ➤ Configure and manage Enterprise Voice.
- ➤ Describe voice routing.
- ➤ Explain how to assign phone numbers.
- ➤ Describe how to configure voicemail.
- ➤ Describe how to configure voice applications.

Module 10: Implementing High Availability in Skype for Business

This module describes how to plan for Front End pool high availability and high availability for Back End Servers. It also describes high-availability solutions for the other components of Skype for Business.

Lessons

- ➤ Planning for Front End Pool High Availability
- ➤ Planning for Back End Server High Availability
- ➤ High Availability for Other Component Servers

Lab : Pre-Lab Configuration

- ➤ Preparing for the Lab

Lab : Implementing High Availability

➢ Managing Front End Pools
➢ Configuring Hardware Load Balancing

After completing this module, students will be able to:

➢ Plan for Front End pool high availability.
➢ Plan the high availability for Back End Servers.
➢ Describe high-availability solutions for the other components of Skype for Business.

Module 11: Implementing Disaster Recovery in Skype for Business

This module describes the concepts of disaster recovery in Skype for Business Server. It then explains how to implement disaster recovery in Skype for Business Server. Finally, it describes how to plan additional disaster recovery scenarios.

Lessons

➢ Disaster Recovery Options in Skype for Business Server
➢ Implementing Disaster Recovery in Skype for Business Server
➢ Additional Disaster Recovery Options in Skype for Business Server

Lab : Implementing and Performing Disaster Recovery

➢ Configuring Pool Pairing
➢ Perform Pool Failover and Failback

After completing this module, students will be able to:

➢ Explain the concepts of disaster recovery in Skype for Business Server.
➢ Implement disaster recovery in Skype for Business Server.
➢ Explain how to plan additional disaster recovery scenarios.

Module 12: Implementing a Skype for Business Server and Office 365 Hybrid Deployment

This module describes how to implement and manage Teams. It then explains how to prepare for a Skype for Business hybrid deployment. It also explains how to configure a Skype for Business hybrid environment.

Lessons

- ➢ Overview of Office 365
- ➢ Preparing for a Hybrid Deployment
- ➢ Configuring a Hybrid Skype for Business Environment

Lab : Designing a Hybrid Skype for Business Server Environment

- ➢ Designing the Hybrid Skype for Business Deployment

After completing this module, students will be able to:

- ➢ Explain how to implement and manage Teams.
- ➢ Explain how to prepare for a Skype for Business hybrid deployment.
- ➢ Explain how to configure a Skype for Business hybrid environment.

Module 13: Planning and Implementing a Migration to Skype for Business Server or Microsoft Teams

This module describes supported migration and upgrade paths for Skype for Business Server 2015 and Skype for Business Server 2019. It also describes how to perform a migration from Lync Server 2013 to Skype for Business Server. Finally, it explains how to manage the user experience during an upgrade or migration.

Lessons

- ➢ Overview of Upgrade and Migration Paths
- ➢ Migrating to Skype for Business Server 2019
- ➢ Migrating to Microsoft Teams
- ➢ In-Place Upgrade to Skype for Business Server 2015

Lab : Performing a Side-by-Side Migration of Lync Server 2013 to Skype for Business Server 2019

- ➢ Prepare Migration and Deploy Pilot Pool
- ➢ Move Pilot Users

Lab : Performing an In-Place Upgrade of Lync Server 2013 to Skype for Business Server 2015

- ➢ Installing Skype for Business Administrative Tools

- Performing In-Place Upgrade from Lync Server 2013 to Skype for Business Server 2015

After completing this module, students will be able to:

- Describe the migration paths from Lync Server 2013 and Skype for Business Server 2015.
- Migrate to Skype for Business Server 2019.
- Describe the migration path to Microsoft Teams.
- Describe the process for an in-place upgrade to Skype for Business Server 2015.

✦ Prerequisites:

In addition to their professional experience, students who attend this training should already have the following technical knowledge:

- Minimum of two years of experience administering Windows Server, including Windows Server 2016 or Windows Server 2019
- Minimum of two years of experience working with AD DS
- Minimum of two years of experience working with name resolution, including Domain Name System (DNS)
- Experience working with certificates, including public key infrastructure (PKI) certificates
- Experience working with Windows PowerShell
- Understanding of data networks and telecommunications standards and components

✦ Who Can attend:

- The primary audience for this course is information technology (IT) professionals who are responsible for the Skype for Business deployment in their organizations. Experience with previous versions is beneficial but not required for students taking this course. Students should be proficient with Active Directory Domain Services (AD DS), data networks, and telecommunications standards and components that support the configuration of Skype for Business. Students should also be familiar with Microsoft Exchange Server and Microsoft 365.

- The secondary audience for this course includes IT professionals who are planning to take the exam 70- 334: Core Solutions of Skype for Business 2015 as a stand-alone exam or as part of the requirement for the Microsoft Certified Solutions Expert (MCSE): Communications certification exam.

🔸 **Number of Hours: 40hrs**

🔸 **Certification: 70-334**

Deploying Voice Workloads for Skype for Business Online and Server 2015/2019 Certification Training

🔸 **Course Overview:**

In this course teaches how to design, plan, and deploy the various voice solutions available with Skype for Business Online and Skype for Business Server 2015. This course will provide you with the knowledge and skills to configure and manage Cloud PBX with PSTN Calling, Cloud PBX with On-Premises PSTN Connectivity, Cloud Connector Edition, and on-premises Enterprise Voice. This course will also provide procedures, guidelines, best practices, and other important considerations that will help you implement, optimize, and troubleshoot Skype for Business Online and Skype for Business Server 2015 voice solutions. This course helps students prepare for Microsoft Exam 70-333 "Deploying Enterprise Voice with Skype for Business 2015."

🔸 **Course Outline:**

Module 1: Introduction to Voice Workloads

Designing a Skype for Business voice solution requires the understanding of many technologies. With Microsoft's latest cloud based voice services, customers now have even more flexibility in deploying a voice solution for their enterprise, but with that flexibility

comes further complexities that must be understood. In this module, you will learn about basic VoIP concepts, how they evolved from early telephony technologies, as well as Office 365 services and Microsoft's entry into the voice world. You will also learn about on-premises and cloud based voice offerings now available as part of the Skype for Business product set.

Lessons

- ➢ Voice Overview
- ➢ Designing Voice Workloads
- ➢ Skype for Business Ecosystem
- ➢ SIP Basics and Routing

Lab : Customizing Your Lab Environment

- ➢ Configuring the On-Premises Organization

After completing this module, students will be able to:

- ➢ Describe the different options available across various possible voice architectures with Skype for Business Server 2015 and Skype for Business Online.
- ➢ Explain how cloud technologies are changing the design, deployment, and management of voice architectures.
- ➢ Relate their prior experience to what they will learn throughout the course.

Module 2: Assess Network and Voice Deployment Options

In this module, you will learn how to perform a network readiness assessment for an implementation of Skype for Business Server 2015 or Skype for Business Online. This module coincides with the Skype Operations Framework (SOF) Plan phase. Specifically, this module aligns with the Envision, Assess, and Design stages. You will learn about Skype for Business Online and Skype for Business Server 2015 features and functionality. You will also learn the supported architectures for Skype for Business Online and Skype for Business Server 2015.

Lessons

- ➢ Network Planning and Assessment
- ➢ Skype for Business Features and Functionality
- ➢ Plan your Cloud PBX Solution

Lab : Configuring Identity Federation with Office 365

- ➢ Adding a Custom Domain and Enabling Directory Synchronization in Office 365
- ➢ Performing Directory Synchronization
- ➢ Installing and Configuring Active Directory Federation Services
- ➢ Enabling Single Sign-On with Office 365

After completing this module, students will be able to:

- ➢ Describe the phases of network assessment.
- ➢ Identify Skype for Business Online plans.
- ➢ Describe the supported voice architectures.
- ➢ Choose a voice architecture for a given scenario.

Module 3: Split Domain Configuration

In this module, you will learn what is meant by the term split domain and what it describes relative to the Skype for Business product. You will also learn the benefits of split domain, the prerequisites needed to deploy this environment, and how to provision users once it's been configured. Finally, you will learn to troubleshoot common issues.

Lessons

- ➢ Split Domain Overview
- ➢ Split Domain Requirements
- ➢ Split Domain Deployments
- ➢ User Provisions and Migration
- ➢ Troubleshooting Split Domain Related Issues

Lab : Setting up Split Domain with Skype for Business Online

- ➢ Setting up Split Domain with Skype for Business Online
- ➢ Moving Users to Skype for Business Online
- ➢ Verifying the Split Domain Skype for Business User Experience
- ➢ Managing Users in Skype for Business Online

After completing this module, students will be able to deploy and configure an environment where users of a domain are split between using Skype for Business Server 2015 and Skype for Business Online.

Module 4: Cloud PBX with PSTN Calling and Conferencing

Cloud PBX is a Microsoft-based PBX solution offered in Office 365. Cloud PBX enables organizations to eliminate their existing PBX infrastructure and migrate PBX functionality, as well as existing telephone numbers, to Office 365. Public Switch Telephone Network (PSTN) Calling provides a PSTN connection for users via Microsoft Calling Plans. PSTN Conferencing has been integrated into Skype for Business Online Meetings capability in Office 365 which allow users to create, manage, and host their own online meetings with PSTN integration for easy dial-in access.

Lessons

- ➢ Cloud PBX with PSTN Calling Features
- ➢ PSTN Conferencing and Meeting Features
- ➢ Skype for Business Server 2015 Dial-in Conferencing

Lab : Configuring Cloud PBX with PSTN Calling

- ➢ Enabling Users for PSTN Calling in Skype for Business Online
- ➢ Using Online PSTN Calling Features
- ➢ Enabling Users for Cloud PSTN Conferencing
- ➢ Using PSTN Conferencing in Skype for Business Online

After completing this module, students will be able to:

- ➢ Describe Cloud PBX with PSTN Calling features and conferencing
- ➢ Deploy and configure conference and meeting features
- ➢ Deploy and configure PSTN Conferencing

Module 5: Enterprise Voice (On-Premises)

In this module, you will learn about Skype for Business Server 2015 Enterprise Voice. Enterprise Voice is a unified communications solution delivered by Skype for Business Server 2015. Enterprise Voice enables organizations to send and receive calls via the Publicly Switched Telephone Network (PSTN). You will learn how to configure voice components like Dial Plans, Voice Policies, and Routes that are an integral part of the Enterprise Voice solution.

Lessons

- ➢ Designing Enterprise Voice
- ➢ Configuring Enterprise Voice
- ➢ Voice Routing
- ➢ Assigning Phone Numbers
- ➢ Client Configuration
- ➢ Unified Messaging

Lab : Configuring Enterprise Voice

- ➢ Build a Regular Expression
- ➢ Configuring Dial Plans
- ➢ Configuring a Voice Policy, PSTN Usage, and Route
- ➢ Assigning User Dial Plans and Policies
- ➢ Test Voice Routing
- ➢ Configure the London Dial Plan

After completing this module, students will be able to:

- ➢ Design and implement Skype for Business Enterprise Voice.
- ➢ Configure Enterprise Voice settings, including dial plans, voice policy, PSTN usage, voice routes, trunks, and numbering plans for DID and extensions.
- ➢ Describe Skype for Business Voice Routing.
- ➢ Integrate Exchange Unified Messaging with Skype for Business Server 2015.
- ➢ Configure Skype for Business client voice features.

Module 6: PSTN Connectivity

A key component to a successful organization is the ability to communicate between internal employees and customers and partners. In order for this to happen organizations need to bridge communications between their internal communications systems such as Skype for Business Server 2015 and the public switched telephone network by using an existing Public Branch Exchange (PBX), gateway, or Internet service provider (ISP). Connection to the PSTN enables enterprise users to make and receive calls from external numbers by using the same Skype for Business client used for internal calls. In addition, employees can leverage the broad range of Skype for Business features to improve their communications interactions with external users connected through the PSTN.

Lessons

- ➢ Connecting to the PSTN
- ➢ Connecting to the Existing PBX
- ➢ M:N Interworking Routing
- ➢ Call Routing Reliability
- ➢ Call via Work
- ➢ Shared Line Appearance
- ➢ IP Phones
- ➢ Room Systems
- ➢ Mobile

Lab : Configuring Integration with an IP-PBX

- ➢ Configuring Enterprise Voice Settings for London
- ➢ Configuring Inter-Trunk Routing
- ➢ Research Skype for Business Server 2015 Integration Settings
- ➢ Configuring IP-PBX Integration Settings

After completing this module, students will be able to:

- ➢ Plan for the Mediation Server role.
- ➢ Connect Skype for Business Server 2015 to the PSTN.
- ➢ Implement M:N interworking routing.
- ➢ Define a reliable route for calls by using the PSTN.
- ➢ Describe Call via Work.
- ➢ Describe Shared Line Appearance.

Module 7: Cloud PBX with On-Premises PSTN Connectivity using an Existing Deployment

This module discusses the implementation and configuration of Cloud PBX with an on-premises PSTN with an existing deployment. With many options for implementation, students should be familiar with the different methods and connectivity options. Implementing Cloud PBX requires a tenant with Office 365 and a network infrastructure that can be utilized for users at an office or on a public internet connection. It is important to remember that dial-in conferencing needs to be implemented via PSTN Conferencing or Audio Conferencing Provider (ACP). On-Premises PSTN Connectivity with Cloud Connector Edition will be covered in the next module.

Lessons

> Call Flows and Manageability

Lab : Call Flows and Manageability
> *Exercise 1: Testing the Current PBX Calling Solution
> *Exercise 2: Enabling Cloud PBX with On-Premises PSTN Connectivity
> *Exercise 3: Testing Cloud PBX with On-Premises PSTN Connectivity

After completing this module, students will be able to:

- *Explain Cloud PBX with On-Premises PSTN Connectivity architectures and scenarios

Module 8: Cloud PBX with On-Premises PSTN Connectivity using Cloud Connector Edition

Enterprises that have a voice solution on-premises that does not include Skype for Business Server 2015 or Lync Server 2013 can still integrate their current solution with Skype for Business Online by leveraging Cloud Connector Edition (CCE). It is important to choose the correct topology for CCE in order to support an organization's voice requirements. This module will review the different supported topologies and provide guidance on the deployment process.

Lessons
> Introduction to Cloud Connector Edition
> Planning PSTN Connectivity via Cloud Connector Edition
> Deploying Cloud Connector Edition

Lab : Deploying Cloud Connector Edition
> Configuring the Lab Organization
> Prepare First Cloud Connector Edition High Availability Appliance
> Prepare Second Cloud Connector Edition High Availability Appliance
> Create Base VHDX for Cloud Connector Edition Virtual Machines
> Deploy First Cloud Connector Edition High Availability Appliance
> Configure Office 365 Tenant
> Test Cloud PBX with On-Premises PSTN Connectivity
> Deploy Second Cloud Connector Edition High Availability Appliance
> Complete and Testing Cloud Connector Edition High Availability
> Test Cloud Connector Edition Management Service Auto Recovery

After completing this module, students will be able to:

- ➢ Know when Cloud Connector Edition is the right solution for an organization.
- ➢ Identify Cloud Connector Edition requirements.
- ➢ Deploy and manage Cloud Connector Edition.

Module 9: Enhanced Calling Features and Device Requirements

Enterprise Voice provides a number of specific on-premises features such as call parking, unassigned numbers, PSTN conferencing, and Response Groups. It also builds on the basic Enterprise Voice deployment scenario introduced earlier in the course.

To use Enterprise Voice, you need to know about the various Enterprise Voice applications and how to implement and configure them. You will explore the Skype for Business Server Response Group Service (RGS) in some depth, including components such as RGS agent groups, RGS queues, hunt groups or basic workflows, and Interactive Voice response workflows. In addition, you should be able to describe the Attendant routing method.

Lessons
- ➢ Call Park Service
- ➢ Managing Calls to Unassigned Numbers
- ➢ Delegation and Private Lines
- ➢ Response Group Services
- ➢ Location Information Services and E9-1-1

Lab : Configuring Response Groups
- ➢ Configuring Agent Groups and Queues
- ➢ Configuring Workflows
- ➢ Verifying the Response Group Service Behavior

Lab : Configuring Location Information Services and Managing Devices
- ➢ Creating Emergency Routes and PSTN Usages
- ➢ Configuring Number Manipulation on Trunks for Emergency Numbers
- ➢ Defining LIS Locations
- ➢ Experiencing LIS Features

After completing this module, students will be able to:

- ➢ Explain the various voice features.
- ➢ Configure calling features that extend Skype for Business Enterprise Voice functionality.
- ➢ Configure call distribution with response groups.
- ➢ Make devices location aware with Location Information Service.
- ➢ Manage devices in Skype for Business Server 2015.

Module 10: Network Requirements

In this module, you will learn how to optimize voice communications on a network by planning for network consumption and implementing bandwidth optimizing technologies such as call admission control (CAC), quality of service (QoS), and software defined networks (SDN). You will also learn the media stacks available for Skype for Business Server 2015 and Skype for Business Online.

Lessons
- ➢ Media Stacks
- ➢ Traffic Modeling
- ➢ Quality of Service
- ➢ Software-Defined Networking
- ➢ Overview of Call Admission Control
- ➢ Implementing Call Admission Control
- ➢ Software-Defined Networking

Lab : Managing Voice Quality
- ➢ Entering information into the Skype for Business Bandwidth Calculator
- ➢ Reviewing Calculated Results
- ➢ Configuring Quality of Service
- ➢ Verifying the Quality of Service Application
- ➢ Configuring Call Admission Control to Manage Bandwidth
- ➢ Analyzing DSCP Values and Port Ranges for Prioritizing Network Traffic (Bonus Exercise

After completing this module, students will be able to:

- ➢ Explain the media stacks available for Skype for Business Server 2015 and Skype for Business Online.
- ➢ Plan for network consumption.

- ➢ Optimize voice communications on a network.
- ➢ Implement bandwidth-optimizing technologies such as call admission control (CAC), quality of service (QoS), and software-defined networks (SDN).

Module 11: Monitoring and Maintaining Voice Quality

Asserting, achieving, and maintaining call quality are imperative for a successful Skype for Business deployment, especially for voice and conferencing workloads. This module will detail Microsoft's Call Quality Methodology as both a process and toolset that can be used to achieve these goals. Call Quality Scorecard, along with its accompanying script and the Call Quality Dashboard, will be described as additional tools to measure and maintain call quality goals set by an organization. The module will also show how to leverage native Skype for Business tools and datasets to help troubleshoot and further refine deployment quality.

Lessons

- ➢ Call Quality Methodology
- ➢ Call Quality Dashboard
- ➢ Monitoring Tools
- ➢ Usage Reports and Monitoring

Lab : Deploying Call Quality Dashboard, Analyzing Reports, and Capturing KHI

- ➢ Installing the Skype Call Quality Dashboard
- ➢ Using the Skype Call Quality Dashboard
- ➢ Analyze Peer-to-Peer Session Detail Reports
- ➢ Troubleshoot Media Quality Reports
- ➢ Monitoring Synthetic Transactions
- ➢ Monitoring Server Health

After completing this module, students will be able to:

- ➢ Leverage the Call Quality Methodology (CQM) and monitoring tools.
- ➢ Effectively define and assert call quality.

Module 12: Voice Troubleshooting

Troubleshooting is a basic skill that is required to support Skype for Business Server deployments. Skype for Business infrastructure can be deployed in a variety of topologies, as has been described throughout this course. Skype for Business administrators should be familiar with both the core tools and the troubleshooting methods that apply specifically to Skype for Business Online and Skype for Business Server 2015. This module will introduce tools and methodologies for troubleshooting Skype for Business client, Skype for Business Server 2015, and Skype for Business Online. Various scenarios will be explored to provide familiarity with some of the common issues administrators face.

Lessons

➢ Troubleshooting Call Quality
➢ Troubleshooting Scenarios
➢ Troubleshooting Skype for Business Online Voice
➢ Troubleshooting IP Phones

Lab : Troubleshoot Dial Plans, Routing, and Trunks

➢ Reviewing the Centralized Logging Service Components
➢ Using the CLS Logger Tool
➢ Tracing Fundamentals
➢ Identifying Dial Plan Misconfiguration
➢ Troubleshooting Voice Routing Issues

After completing this module, students will be able to:

➢ Troubleshoot call quality.
➢ Identify troubleshooting tools.
➢ Identify troubleshooting scenarios.
➢ Use troubleshooting methodology to research, diagnose, and remediate call quality issues.
➢ Troubleshoot common Skype for Business Online client issues.
➢ Troubleshoot IP Phones.

   Prerequisites:

• Experience with Skype for Business Server 2015 or Lync Server 2013 technologies and familiarity with supported migration scenarios.

- Proficiency in planning and deploying Skype for Business Server 2015 and Skype for Business Online solutions for end users, endpoint devices, telephony, audio/video and web conferences, security, high availability, and disaster recovery.
- Ability to monitor and troubleshoot Skype for Business Server 2015 at a basic level using Microsoft monitoring and troubleshooting tools (Snooper, centralized logging service (CLS), Key Health Indicators (KHI)).
- Proficiency with Active Directory Domain Services, data networks, Azure Active Directory Domain Services, directory synchronization, and telecommunications standards and network components that support the configuration and deployment of Skype for Business architectures.
- Familiarity with the requirements and process for integrating Skype for Business Server 2015 with Microsoft Exchange Server and Office 365.
- Knowledge of the following technologies: Windows, Windows Server and Hyper-V, QoS, TCP/IP, network load balancing, PowerShell, understanding of Session Initiation Protocol (SIP) basic telephony concepts including SIP trunking, gateway, and Session Border Controller (SBC) interconnects, and common private branch exchange (PBX) deployment architectures.

Who Can attend:

- This course is intended for IT consultants and telecommunications professionals who design, plan, deploy, and maintain solutions for unified communications (UC) and need to translate business requirements into technical architectures and designs for UC solutions. It is also intended for support staff in charge of maintaining UC solutions. The student should be familiar with Skype for Business Server 2015 or Lync Server 2013 technologies and the telecommunications standards and network components that support the configuration and deployment of Skype for Business architectures.

Number of Hours: 40hrs

Certification: 70-333

Key Features:

➢ One to One Training

- ➢ Online Training
- ➢ Fastrack & Normal Track
- ➢ Resume Modification
- ➢ Mock Interviews
- ➢ Video Tutorials
- ➢ Materials
- ➢ Real Time Projects
- ➢ Virtual Live Experience
- ➢ Preparing for Certification