

KOENIG SOLUTIONS · COURSE OUTLINE

MS-721T00: Collaboration Communications Systems Engineer

Learn to plan, configure, and troubleshoot Microsoft Teams Phone, meetings, rooms, and devices across collaboration communication systems.

12

MODULES

68

TOPICS

7

HANDS-ON ACTIVITIES

COURSE OVERVIEW

In this course you're responsible for planning, deploying, configuring, maintaining, and troubleshooting collaboration communication systems that include: Microsoft Teams Phone, Microsoft Teams meetings, Microsoft Teams Premium, Microsoft Copilot in Teams, Microsoft Teams Rooms, and other certified and supported devices. As a collaboration communications systems engineer, you have a fundamental understanding of networking, telecommunications, audio/visual and meeting room technologies, and identity and access management. You're proficient in managing collaboration and communications solutions by using Microsoft Teams admin center, Microsoft Teams Rooms Pro Management portal, PowerShell, and Microsoft Call Quality Dashboard. You work with Microsoft Teams administrators, Microsoft identity and access administrators, Microsoft 365 administrators, and owners of other workloads, including facilities managers, network engineers, security engineers, device manufacturers, telephony providers, and Microsoft Certified solution providers.

WHO THIS COURSE IS FOR

Teams Administrators

Collaboration Engineers

Identity And Access Administrators

Microsoft 365 Administrators

Network Engineers

Telephony Providers

PREREQUISITES

- Microsoft 365 and Microsoft Teams
- Networking, telecommunications, and audio/visual basics
- Identity and access management basics

LEARNING OBJECTIVES

Skills measured

- Plan and design collaboration communications systems
- Configure and manage Teams meetings, webinars, and town halls
- Configure and manage Teams Phone
- Configure and manage Teams Rooms and devices

12 Modules, 68 Topics

01

Introduction to Teams Meetings and Calling

TOPICS

Understanding Meeting types · Overview of Teams Phone · Overview of Auto Attendant and Call Queues · Overview of Teams devices

02

Plan for Teams Phone

TOPICS

Plan Usage Scenarios for services and users · Plan to deploy Teams Phone · Determine licensing requirements · Plan for Teams Phone Devices · Plan and design Teams Phone Features · Plan for Voice Mail

03

Plan Microsoft Teams Rooms and Surface Hub

TOPICS

- Determine license requirements
- Understand Microsoft Teams Rooms for Android and Microsoft Teams Rooms for Windows
- Understand Microsoft Surface Hub
- Understand and Plan Teams Room Accessories, Components and Peripherals
- Understand Microsoft Teams Rooms Management

04

Plan and Optimize Network Performance for Teams Phone

TOPICS

Understand Teams network requirements · Design network for media optimization · Design and implement QoS

05

Configure Teams Phone

TOPICS

Configure Emergency Calling for Calling Plans · Manage and configure Microsoft PSTN numbers · Configure Operator Connect · Configure Teams Phone policies · Configure Audio Conferencing

06

Configure and Deploy Teams Phone Direct Routing

TOPICS

- Design Direct Routing call flows
- Implement SIP Trunking with Direct Routing
- Configure Emergency Calling for Direct Routing
- Extend Teams DR Infrastructure
- Deploy and Maintain an SBA

Extend Teams Phone with Additional Services

TOPICS

- Understand how Teams Phone interacts with other Microsoft services
- Configure and integrate third-party policy-based compliance recording solutions
- Configure and integrate third-party contact center solutions
- Design and register Voice Bots for custom solutions

Manage Meetings and Events Experiences

TOPICS

- Understand meetings and events in Microsoft Teams
- Set up conference bridges
- Manage meeting policies
- Configure meeting settings
- Manage Live events policies
- Configure Live events settings
- Explain Live events in Microsoft 365

Configure and Manage Voice Users

TOPICS

- Enable users for Teams Phone
- Enable users for Direct Routing with Teams Phone
- Enable users for Teams Phone Mobile
- Enable additional calling features for Teams Phone

Configure Auto Attendants and Call Queues

TOPICS

- Design call flows for AA/CQ
- Configure AA/CQ
- Deploy a channel-based CQ
- Configure Resource Accounts
- Configure O365 Groups for VM
- Interpret CQ Conference Mode
- Interpret CQ Routing Methods
- Configure Holidays for AA/CQ
- Configure custom Music on Hold for CQ/AA/VM

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Configure, Deploy and Manage Teams Devices

TOPICS

- Managing Microsoft Teams Phones
- Managing Microsoft Teams Room Systems
- Managing MTR devices
- Manage Microsoft Teams settings for Surface Hub
- Configure SIP Gateway
- Remote provisioning and sign in for Teams Phones
- Update Microsoft Teams devices remotely
- Manage Microsoft Teams device tags

12

4 Activities

Guided Project - Prepare Meeting Room Experiences

TOPICS

- Diagnose and troubleshoot phone number assignment
- Diagnose and Troubleshoot Microsoft Teams Client issues
- Diagnose and troubleshoot call failures and quality issues
- Report on and Troubleshoot Teams calls with Call Quality Dashboard (CQD)
- Diagnose and Troubleshoot Direct Routing Issues
- Troubleshoot and monitor Teams devices
- Troubleshoot Teams meeting and calling
- Troubleshoot Teams Room devices

Practise What You Learn

#	MODULE	ACTIVITY
		LABS
07	Extend Teams Phone with Additional Services	■ Lab 01 - Prepare the lab environment: Exercise 1: Assign permissions and licenses (Task 1 - Assign Katie Jordan to the Teams Administrator role; Task 2 - Validate licenses in the admin portal; Task 3 - Add the Domestic Calling Plan trial license to your tenant; Task 4 - Assign the Domestic Calling Plan license to Isaiah Langer); Exercise 2: Setup PowerShell for Microsoft Teams administration (Task 1 - Install the latest Teams PowerShell module)
	Extend Teams Phone with Additional Services (continued)	■ Lab 02 - Configure your environment for Teams Voice Usage: Exercise 1: Evaluate your network with the Network Planner (Task 1 - Create Personas; Task 2 - Create Network and Network Sites; Task 3 - Run Reports); Exercise 2: Use the Teams Network Assessment Tool (Task 1 - Install the Tool; Task 2 - Run the Network Connectivity Check; Task 3 - Interpret Results of the Network Connectivity Check; Task 4 - Run the Network Quality Check; Task 5 - Interpret Results of the Network Quality Check); Exercise 3: Configure a basic network topology for Dynamic Emergency Calling (Task 1 - Add Network Region and sites to Network Topology; Task 2 - Add a trusted IP address; Task 3 - Add an emergency address; Task 4 - Mapping a network to a physical location (emergency address); Task 5 - Configure Emergency Calling Policies); Exercise 4: Configure Voice Policies (Task 1 - Create a Dial Plan for extension dialing; Task 2 - Configure Calling policies; Task 3 - Configure Call Park policies; Task 4 - Configure Caller ID policies; Task 5 - Configure Inbound call blocking); Exercise 5: Prepare users for calling (Task 1 - Order a phone number; Task 2 - Assign a phone number to Isaiah Langer; Task 3 - Test phone calls); Exercise 6: Configure Audio Conferencing Settings (Task 1 - Set a default Audio Conferencing Bridge; Task 2 - Order a new Conference Bridge Number; Task 3 - Configure a New Conference Bridge Number) ■ Lab 03 - Expand your Teams Voice Environment to use Direct Routing: Exercise 1: Configure lab for Direct Routing (Task 1 - Identify your lab's public IP address; Task 2 - Retrieve your lab number; Task 3 - Run the CallsandMeetLabs.exe script; Task 4 - Request your public certificate from DigiCert; Task 5 - Verify the custom domain has been added to your Microsoft 365 tenant; Task 6 - Assign the custom lab domain to Megan Bowen); Exercise 2: Deploy the session border controller (1. Add the SBC to the tenant; 2. Retrieve your public certificate file; 3. Run the ImportLabCert script located in C:\Scripts; 4. Setting up Session Border Controller (SBC) Virtual Machine resources; 5. Retrieve SBC Public IP and configure DNS routing; 6. Sign into the SBC; 7. Upload root certificates to the SBC; 8. Upload the lab certificate to the SBC); Exercise 3: Configure the session border controller (1. Configure SIP Interfaces on SBC; 2. Configure Proxy Sets on SBC; 3. Configure Proxy Addresses Interface on SBC; 4. Configure Coder Groups on SBC; 5. Configure IP Profiles on the SBC; 6. Configure IP Groups on SBC; 7. Configure SRTP on SBC; 8. Configure Message Manipulation on SBC; 9. Configure IP to IP Calling rules on SBC; 10. Verify the SBC Connections to Teams); Exercise 4: Configure Teams for Direct

#	MODULE	ACTIVITY
		Routing (1. Create a voice routing policy with one PSTN usage; 2. Create a new voice routing policy named North America and assign it to Megan Bowen; 3. Enable users for Direct Routing, voice, and voicemail; 4. Configure voice routing; 5. Translate numbers to an alternate format; 6. Configure Emergency Location Identification Number (ELIN); 7. Deploy Location-Based Routing based on subnets)
		GUIDED PROJECT TASKS ■ Task 1: Create dynamic security group for room resource accounts ■ Task 2: Configure security settings to exclude room resources accounts from MFA requirement ■ Task 3: Create room resource accounts ■ Task 4: Configure mailbox properties for the room resource accounts LAB 04 - MANAGE YOUR TEAMS VOICE ENVIRONMENT ■ Exercise 1: Manage Voice Users (Task 1 - Change user call pickup settings; Task 2 - Enable user for Teams Direct Routing; Task 3 - Configure call delegation; Task 4 - Enable audio conferencing; Task 5 - Assign a dial out policy) ■ Exercise 2: Configure Call Queues and Auto Attendants (Task 1 - Create a call queue in the Teams Admin Center; Task 2 - Create an auto attendant for the Sales call queue; Task 3 - Configure a Call Queue to use a channel; Task 4 - Configure a Call Queue to forward to voicemail if busy; Task 5 - Explore conference mode toggle; Task 6 - Set holiday modes within AA; Task 7 - Import MP4 file for custom music on hold) ■ Exercise 3: Manage Teams Devices (Task 1 - [Demo] Perform remote provisioning of Teams Phones; Task 2 - Create, license, and enable Enterprise Voice for a Microsoft Teams Room account; Task 3 - Create a resource account and Exchange Online mailbox; Task 4 - Prepare to manage devices by creating tags in the Teams Admin Center) ■ Exercise 4: Monitor and Troubleshoot Teams Phone (Task 1 - Run self-help diagnostics tool in Microsoft 365 admin center; Task 2 - Break a dial plan and check the issue; Task 3 - Review Call Health Real Time Stats on a live call; Task 4 - Use the Microsoft 365 connectivity test tool; Task 5 - Inspect PSTN Usage Reports; Task 6 - Review Calls in Call Analytics; Task 7 - Review Calls in Call Quality Dashboard)

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Guided Project - Prepare Meeting Room Experiences

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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