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## Collaboration Communications Systems Engineer

**Duration: 4 Days**    **Course Code: M-MS721**    **Delivery Method: Virtual Learning**

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### Overview:

This training course is designed to give participants the knowledge and skills to become a Collaboration Communications Systems Engineer. Participants should understand the fundamentals of networking, telecommunications, audio/visual and meeting room technologies, identity and access management, and Microsoft Teams.

They will gain hands-on experience configuring and deploying Microsoft Teams Phone, meetings and certified devices including Microsoft Teams Rooms and Surface Hub. The course will also cover how to manage and monitor Teams Phone, meetings, and certified devices using the Microsoft Teams admin center, PowerShell, the Microsoft Teams Rooms Pro Portal, and the Call Quality Dashboard.

In addition, the course will cover configuring and deploying Microsoft Teams Phone with PSTN connectivity through Microsoft Calling Plans, Operator Connect, Teams Phone Mobile, and Direct Routing.

### Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

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### Target Audience:

Collaboration Communications Systems Engineers are responsible for planning, deploying, configuring, maintaining, and troubleshooting Microsoft Teams Phone, meetings, and personal and shared space devices, including Microsoft Teams Rooms and Surface Hub. Collaboration Communications Systems Engineers have a fundamental understanding of networking, telecommunications, audio/visual and meeting room technologies, identity and access management.

They are proficient in managing and monitoring Teams Phone, meetings, and certified devices using the Microsoft Teams admin center, PowerShell, the Microsoft Teams Rooms Pro Portal, and the Call Quality Dashboard. They deploy and configure Microsoft Teams Phone with PSTN connectivity through Microsoft Calling Plans, Operator Connect, Teams Phone Mobile, and Direct Routing.

Collaboration Communications Systems Engineers work with Teams Administrators, Microsoft Identity and Access Administrators, and Microsoft 365 Administrators. In addition, they may work with owners of other workloads, including facilities managers, network engineers, security engineers, device manufacturers, telephony providers, and Microsoft Certified solutions providers.

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### Prerequisites:

Before attending this course, students should have general knowledge of the following topics:

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

### Introduction to Teams meetings and calling

- Introduction
- Overview of Teams meetings and events
- Overview of Teams Phone
- Overview of auto attendants and call queues
- Overview of Teams devices
- Knowledge check
- Summary and resources

### Plan for Teams Phone

- Introduction
- Plan to deploy Teams Phone
- Plan for Teams Phone PSTN connectivity
- Determine license requirements
- Plan for Teams Phone devices
- Plan and design Teams Phone features
- Plan for voicemail
- Knowledge check
- Summary and resources

### Plan for Microsoft Teams Rooms and Surface Hub

- Introduction
- Determine license requirements for Microsoft Teams Rooms and shared devices
- Understand differences between Microsoft Teams Rooms on Android and Windows
- Understand Microsoft Teams Rooms on Surface Hub 2S
- Understand and plan Teams Room accessories, components, and peripherals
- Understand Teams Rooms management options
- Knowledge check
- Summary and resources

### Plan and optimize network performance for Teams media

- Introduction
- Understand Teams network requirements
- Design network for media optimization
- Design and implement QoS
- Knowledge check
- Summary and resources

### Configure and deploy Teams Phone

- Introduction
- Configure emergency calling for Teams Calling Plans
- Manage and configure Microsoft PSTN numbers
- Configure Operator Connect and Teams Phone Mobile
- Configure Teams Phone policies
- Create and manage Teams policies
- Configure Audio Conferencing
- Knowledge check
- Summary and resources

### Configure and deploy Teams Phone with Direct Routing

- Introduction
- Design Direct Routing call flows
- Implement SIP trunking with Direct Routing
- Configure Emergency Calling for Direct Routing
- Extend Teams Direct Routing infrastructure
- Deploy and maintain a survivable branch appliance
- Knowledge check
- Summary and resources

### Extend Teams Phone with additional services

- Introduction
- Understand how Teams interacts with additional services
- Configure compliance recording in Teams
- Configure and integrate a certified contact center in Teams
- Design and deploy voice bots in Teams
- Knowledge check
- Summary and resources

### Manage meetings and events experiences

- Introduction
- Explore meetings and events in Microsoft Teams
- Configure meeting settings
- Create and manage meeting policies
- Configure audio conferencing
- Create and manage meeting templates and template policies
- Create and manage meetings customization policies
- Configure live events settings
- Create and manage live events policies
- Examine live events across Microsoft 365
- Knowledge check
- Summary

### Guided project - Create and assign Teams policies to meet business requirements in Microsoft Teams

- Introduction
- Prepare
- Exercise - Create a security group
- Exercise - Create and assign a messaging policy in Teams admin center
- Exercise - Create a meeting policy and assign with PowerShell
- Knowledge check
- Summary

### Configure and manage voice users

### Configure auto attendants and call queues

- Introduction
- Design call flows for auto attendants and call queues
- Configure auto attendants and call queues
- Deploy a channel-based call queue
- Configure resource accounts
- Configure Microsoft 365 groups for voicemail
- Interpret call queue conference modes
- Interpret call queue routing methods
- Configure holidays for auto attendants and call queues
- Configure custom music on hold
- Knowledge check
- Summary and resources

### Configure, deploy, and manage Teams devices

- Introduction
- Manage Microsoft Teams Phones
- Manage Microsoft Teams Room Systems
- Microsoft Teams Rooms management options
- Manage Surface Hub 2S devices
- Configure Microsoft Teams SIP gateway
- Manage Microsoft Teams displays
- Remote provisioning and sign in for Teams Phones
- Update Microsoft Teams devices remotely
- Manage Microsoft Teams device tags
- Knowledge check
- Summary and resources

### Guided project - Prepare meeting room experiences

- Introduction
- Prepare
- Exercise - Create dynamic security group
- Exercise - Configure security settings
- Exercise - Create room resource accounts
- Exercise - Configure mailbox properties
- Knowledge check
- Summary

### Monitor and troubleshoot Teams collaboration communications systems

- Introduction
- Diagnose and troubleshoot phone number assignment
- Diagnose and troubleshoot Teams client issues
- Diagnose and troubleshoot call failure and call quality issues
- Report on and troubleshoot Teams calls with Call Quality Dashboard
- Diagnose and troubleshoot Direct Routing issues
- Troubleshoot and monitor Teams devices

- Introduction
- Enable users for Teams Phone
- Enable users for Direct Routing with Teams Phone
- Enable additional calling features for Teams Phone
- Enable users for Teams Phone Mobile
- Knowledge check
- Summary and resources

- Troubleshoot Teams meetings and calling
- Troubleshoot Teams Rooms devices
- Knowledge check

Summary and resources

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## Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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