

Deploying, Administering, and Troubleshooting Cisco WEBEX Calling (WEBEX-CALL)

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In this Deploying, Administering, and Troubleshooting Cisco WEBEX Calling course provides a comprehensive, end-to-end understanding of the Cisco Webex platform with a strong emphasis on Cisco Webex Calling design, deployment, administration, migration, security, integration, and troubleshooting in real-world enterprise environments. The curriculum begins with a broad Cisco Webex overview, covering Cisco Webex Calling, Cisco Webex Meetings, Cisco Webex Messaging, hybrid services, integrations, and Cisco Webex Control Hub monitoring to establish a solid foundation of the overall collaboration ecosystem. From there, the course progressively deepens into Cisco Webex Calling architecture, differentiators, dedicated instance, and hybrid deployment models, ensuring students understand how cloud, hybrid, and on-premises integrations work together in production networks. Network planning, readiness assessments, security requirements, ports and protocols, private network connectivity, and migration considerations are addressed early to help students design reliable and secure Cisco Webex Calling deployments that meet enterprise and regulatory requirements.

As the course advances, learners gain hands-on knowledge of Cisco Webex Calling endpoints, including phones, wireless and DECT devices, room and conference devices, mobile and desktop clients, headsets, and ATA devices, followed by practical workflows for adding user, personal, shared, and common-area devices. Administrative skills are developed through deep coverage of Cisco Webex Control Hub, including organization settings, licensing, users, locations, templates, integrations, directory synchronization, Azure AD integration, SCIM provisioning, and single sign-on using ADFS and OpenID Connect. Feature configuration is explored in depth, including auto attendants, call queues, hunt groups, paging, receptionist and attendant consoles, hoteling, hotdesking, shared lines, virtual lines, voicemail, executive assistant, and customer experience capabilities such as Cisco Webex Customer Experience Basic and Essentials with omnichannel routing, analytics, and supervisor tools. The course also provides extensive coverage of call recording options, PSTN architectures, CUBE-based local gateways, certificate-based deployments, high availability, dial plans, routing policies, survivability, E911 emergency calling with RedSky, and integrations with Microsoft Teams.

The final modules focus on operational excellence, monitoring, analytics, APIs, and advanced troubleshooting using Cisco Webex Control Hub, detailed call history, media quality analytics, alerts, webhooks, device and headset reporting, and integrations with tools such as ThousandEyes. Students learn structured troubleshooting methodologies for SIP signaling, device registration, media quality, authentication, onboarding, PSTN routing, and site survivability scenarios. The course is reinforced with a progressive lab outline that walks learners through initial Cisco Webex Control Hub configuration, call feature deployment, dial plan design, CUBE high availability, local gateway configuration, call recording, and ongoing monitoring and troubleshooting. By the end of the course, students are equipped with the practical skills and architectural understanding needed to deploy, operate, and support Cisco Webex Calling in complex, real-world enterprise environments with confidence.

How you'll benefit

This class will help you:

- Learn how to Setup and Manage a Webex Solution
- Manage the Webex Calling Environment

Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The primary audience for this course is as follows:

- Collaboration Administrators
- Collaboration Engineer
- Network Administrators
- Network Engineer
- Helpdesk Support Administrators and Engineers
- NOC Support Administrators and Engineers
- Contractors
- IT Staff and Managers

Module 1: Webex Overview

- Webex Product Overview
- Webex Calling Overview
- Webex Meeting Overview
- Webex Hybrid Services and Integrations
- Webex Messaging Overview
- Webex Control Hub Monitoring Overview

Module 2: Webex Calling Overview

- Webex Calling Overview
- Webex Calling Differentiators
- Webex Calling Dedicated Instance
- Hybrid Webex Calling Use Cases

Module 3: Network Planning, Network Assessment, and Security

- Webex Administration Client Requirements
- Network Requirements
- Network Assessment for Webex
- Webex Calling Ports and Protocols
- Private Network Connect to Webex Calling
- Webex Calling Migration Considerations

Module 4: Webex Phones, Devices, and Accessories for Webex Calling

- Webex Calling Devices Overview
- Webex Calling Phones
- Webex Calling DECT Phones

Course Duration

5 days

Course Price

\$4,295.00 or 43 CLCs

Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

- Webex App Calling Features
- Webex Calling Wireless Phones
- Webex Calling Conference Phones
- Webex Calling Mobile Clients
- Webex Calling Devices
- Webex Calling Headsets
- Webex Calling ATA Devices

Module 5: Adding Phones and Devices

- Adding a Phone Assigned to a User
- Adding a Personal Device
- Adding a Common Area Phone
- Adding a Shared Device

Module 6: Webex Calling Migration

- Webex Calling / CUCMC Migration Concepts
- Webex Calling Migration
- Webex Calling Phone Migration
- Webex Calling Migration Tools

Module 7: Webex Control Hub Administration

- Control Hub Overview
- Organization Settings and Templates for Webex
- Licensing
- Adding Users
- Webex Groups
- Webex Locations
- Webex Templates
- Webex Apps and Integrations
- Configuring Users for Calling
- Administration Panels
- Headset Management in Control Hub

Module 8: Webex Directory Synchronization, Azure AD Integration into Webex, and Single Sign-On

- User Provisioning
- Directory Connector Provisioning
- System for Cross - Domain Identity Management (SCIM)
- Integrate Azure AD with Webex
- Single Sign - On with ADFS
- OpenID Connect and PKCE

Module 9: Webex User Portal

- Webex User Portal
- Webex Calling Portal

Module 10: Configuring Webex Calling Settings and Features

- Feature Overview
- Webex Calling - Service Settings
- Webex Calling - Client Settings
- Auto Attendant

- Call Park Extension and Call Park Group
- Call Pickup
- Call Queues
- DECT Network
- Hunt Groups
- Single Number Reach
- Paging Groups
- Receptionist Client / Attendant Console
- Hoteling
- Hotdesking
- Virtual Extensions
- Virtual Lines
- Shared Line
- Voicemail Group
- Announcement Files
- Executive Assistant
- Other Call Features

Module 11: Webex Customer Experience

- Webex Customer Experience Basic vs Essentials
- Webex Customer Experience Basic Features
- Webex Customer Experience Essentials
- Agent Screen Pops
- Supervisor Analytics
- Omni - channel
- Intelligent Routing
- Agents and Supervisor Experience

Module 12: Webex Calling Recording

- Call Recording Options for Webex Calling
- Call Recording with Dubber
- Call Recording Configuration
- Call Recording with Imagicle

Module 13: Webex Calling PSTN

- PSTN Gateway Options and Overview
- Cisco Provided PSTN
- Call Routing with Cloud Connect for Webex Calling (formerly Cloud Connected PSTN) Architecture
- Premises-Based PSTN - Architecture
- CUBE Premises - Based Architecture
- Premise - Based Cube Registration Based
- Multiple Registration - Based Gateway on a Single CUBE
- Certificate - Based Premises - Based PSTN
- Configuring a Certificate - Based PSTN
- CUBE Configuration Platform Configuration and Certificates
- CUBE Certificates Configuration
- CUBE Trunk Enablement Configuration
- CUBE Call Routing Configuration
- CUBE High Availability
- Managing Gateways from the Webex Control Hub

- Enroll the Gateway in the Control Hub
- Validate Registration - Based LGW Configuration through Control Hub
- Private Network Connect

Module 14: Webex Calling Trunks, Route Group and Dial Plans

- Webex Calling Routing Overview
- Webex Calling Locations
- Dial Plans
- Route Groups, Trunks, and Dial Plans
- Webex Calling Routing Flows
- Webex Calling Caller Identity
- Interworking Webex Calling and Unified CM On-Premise
- Call Routing with Premises-based PSTN
- Dial Plan
- PSTN Migration
- Survivability
- ICE: Media Path Optimization
- PSTN for Room Video Systems

Module 15: Webex Calling Site Survivability

- PSTN / Gateway Troubleshooting Overview
- Troubleshooting Call Routing
- Troubleshooting PSTN Calling
- Troubleshooting Case Study

Module 16: Webex Calling Site Survivability

- Site Survivability Solution Overview
- Webex App and Endpoint Changes
- Call Forward Unreachable Setting
- Emergency Calling
- Survivability Call Flows
- Deployment Workflow
- Managing Gateways from the Webex Control Hub
- Add a New Gateway Instance in Control Hub
- Enroll the Gateway in the Control Hub
- Assign Survivability Service to the Gateway from within the Control Hub
- Platform Licenses
- Certificates
- Common Global Configuration
- Data Sync and Updated CLI
- Debugs
- Show Commands
- Limitations and Restrictions
- Testing Survivability
- Colocation of Unified - SRST with Webex – SGW

Module 17: Webex Calling E911 Emergency Call Handling

- Emergency Calling Overview
- Setup E911 Account
- RedSky Configuration

- Webex Calling E911 Configuration
- Enhanced E911 Phone Tracking

Module 18: Webex Calling Integration with Microsoft

- Microsoft Calling Overview
- Microsoft Direct Routing with CUBE
- Webex Calling for Microsoft Teams
- Webex Calling for Microsoft Teams Configuration

Module 19: Monitoring, Analytics, and Troubleshooting with Webex Control Hub

- Webex Calling Monitoring, Analytics, and Troubleshooting Overview
- Webex Sites Status
- Webex Calling Alerts and Webhooks
- Webex Analytics > Dashboards
- Webex Analytics > Calling
- Webex Analytics > Calling Media Quality
- Webex Analytics > Calling Detailed Call History
- Webex Analytics > Call Queue Stats
- Webex Analytics > Call Queue Agent Stats
- Webex Analytics > Live Queue Stats
- Webex Analytics > Calling Auto - Attendant
- Webex Analytics > Devices - Headsets
- Webex Troubleshooting
- Webex Calling Reporting
- Phone Logs and Problem Reports

Module 20: Webex Calling Troubleshooting

- Webex Calling Troubleshooting Overview and Tools
- Understanding SIP Protocol
- Webex Integration with ThousandEyes
- Diagnosing Switch Issues
- Troubleshooting Device Registration
- Troubleshooting Phone and Soft Client Issues
- Troubleshooting Media Quality
- Troubleshooting Webex Authentication
- Troubleshooting User Onboarding and Provisioning

Module 21: Webex Calling API Overview

- Webex API Basics
- Webex Calling API

Labs

Lab 0: Connect to Lab

Lab 1: Connecting to the Webex Calling Lab

Lab 2: Initial Configuration and Verification of the Webex Control Hub

Lab 3: Call Recording Using Webex Lab 4: Call Features

Lab 5: Dial Plans

Lab 6: Configuring CUBE High Availability (HA)

Lab 7: Local Gateway Configuration

Lab 8: Monitoring and Troubleshooting Webex Calling