

Cisco Meeting Server Intermediate (COLLAB250)

Course Summary

Description

The Cisco Meeting Server Intermediate course is an instructor-led, lab-based, hands-on offering by Cisco Learning Services. This course is designed to establish a minimum level of knowledge and competency among Cisco Meeting Server resale and installation partners, which enables them to install, troubleshoot, and maintain a single server and single server split deployment of Cisco Meeting Servers.

Objectives

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

- Install a Cisco Meeting Server in a single combined deployment
- Install a Cisco Meeting Server in a single split deployment
- Troubleshoot tools
- Integrate Cisco Meeting Server with Cisco TelePresence
- Video Communication Server (VCS), Cisco
- Unified Communications Manager and Microsoft Skype for Business

Topics

- Cisco Meeting Server Single Server Solution
- Troubleshooting Tools
- Firewall Traversal and Unified Communications Application Integration

Audience

This course is designed for system engineers, technical support personnel, channel partners, and resellers.

Prerequisites

To fully benefit from this course, students should have the following prerequisite skills and knowledge: Cisco Meeting Server Apps Foundation, or Acano Certified Operator or equivalent knowledge

Duration

Two days

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Course Outline

I. Cisco Meeting Server Single Server Solution

A. Describing the Cisco Meeting Server Solution

1. List the main capabilities a standalone Cisco Meeting Solution
2. List the main audio features of the Cisco Meeting solution
3. List the main video features of the Cisco Meeting solution
4. List the main web features of the Cisco Meeting solution
5. List the features of the Cisco Meeting Solution team Space
6. List the features of the Cisco Meeting Apps
7. Describe what the Cisco Meeting Solution can connect to for cross-platform communication

B. Reviewing Authentication and Encryption

1. Describe symmetric and asymmetric encryption and how a Transport Layer Security (TLS) connection is set up
2. Describe certificates and how certificates are used to authenticate messages
3. Describe how commercial certificates are obtained

C. Describing the Single Server Solution

1. Describe the basic functionality of the Call Bridge, XMPP Server, Web Bridge, and Recorder components deployed on Cisco Meeting Server
2. Describe the single server solution and the components required
3. Describe the call flow of a single server solution

D. Preparing for Cisco Meeting Server Installation

1. Describe three ways to deploy Cisco Meeting Servers in an enterprise.
2. Describe the services prerequisites for the Cisco Meeting Server installation

3. Describe the specific Domain Name System (DNS) requirements for a Cisco Meeting Server
4. Describe the specific certificate requirements for a Cisco Meeting Server
5. Describe the licensing requirements for a Cisco Meeting Solution

E. Installing Cisco Meeting Servers

1. Describe the Cisco Meeting Server 1K hardware platform and installation
2. Describe the VMware installation options
3. Configure the IP, DNS, and Network Time Protocol (NTP) address of the Cisco Meeting Server
4. Configure self-signed certificates and syslog server
5. Upgrade Cisco Meeting Server

F. Configuring the Web Admin

1. Describe the purpose of the Web Admin service
2. List three configurations that can be accessed on the Web Admin
3. Discuss the reason for using a port other than 443 to access the Web Admin with HTTPS

G. Configuring the Call Bridge

1. Configure the Call Bridge
2. Configure Active Directory users from the Web Admin
3. Configure a CDR server from the Web Admin

H. Configuring the Web Bridge

1. Describe the WebRTC App capabilities
2. Configure the Web Bridge
3. Configure the Call bridge to work with the Web Bridge
4. Firewall/NAT considerations on a single server deployment

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Course Outline (cont'd)

II. Troubleshooting Tools

A. Using Troubleshooting Tools

1. Define the seven call detail record (CDR) record types and the information contained in each
2. Capture server configuration files (.json), crash log files, media and application .dmp files. Cisco Meeting
3. App crash files, and Cisco Meeting App diagnostic logs
4. Employ the built-in commands to identify Cisco Meeting Server solution issues including PKI, DNS Lookup, Ping, and Service Status
5. Identify common issues for end users using the Cisco Meeting Server solution

III. Firewall Traversal and Unified Communications Application Integration

A. Deploying a TURN Server

1. Describe the STUN (Simple Traversal of UDP through NATs [Network Address Translation]) protocol
2. Describe the TURN (Traversal Using Relays Around NAT) protocol
3. Describe Interactive Connectivity Establishment (ICE)
4. Discuss the call flow of a split deployment (including with Expressway, VCS, Cisco Unified Communications
5. Manager, and Microsoft Skype for Business components
6. Review the ports required for a split deployment
7. Configure the Cisco Meeting Server TURN server's client IP address (public), and TURN credentials and realm
8. Configure the Call Bridge for TURN services

B. Deploying Firewall and NAT Traversal

1. Describe the DNS Records required for a split deployment
2. Configure the internal server for Web Admin, Call Bridge and XMPP

3. Configure the Web Bridge on the external server
4. Configure the Trunk and Load Balancer
5. Describe how syslogs can be used to confirm connectivity between servers for a split server deployment.

C. Integrating with UC Platforms

1. Deploying firewall and NAT
2. Discuss the call flow of a Unified Communications integrated server solution
3. Describe how the Cisco Meeting Server Call Bridge is reached from Cisco VCS and Cisco Unified Communications Manager
4. Create outbound call rules from the Cisco Meeting Server Call Bridge to the Cisco VCS, Cisco Unified Communications Manager, and Microsoft Skype for Business
5. Create inbound call-matching rules on the Cisco Meeting Server Call Bridge
6. Describe the support for Cisco Meeting Server in Cisco TelePresence Management Suite
7. Describe how Cisco Meeting Server can be deployed as an Ad Hoc conference resource in Cisco Unified Communications Manager.

Lab Outline

- Lab 1: Lab Connectivity
- Lab 2: Single Combined Server Deployment Preparation
- Lab 3 Single Combined Server Deployment
- Lab 4: Troubleshooting Tools
- Lab 5: Single Split Server Deployment
- Lab 6: Unified Communications Integration