

Introducing Cisco Voice and Unified Communications Administration v8.1 (ICOMM 8)

Course Objectives

- Describe the components of a Cisco Unified Communications solution and identify call signaling and media stream flows
- Provide an overview of administrator and end-user interface options in Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity Express, Cisco Unity Connection, and Cisco Unified Presence
- Understand call flows in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express
- Perform endpoint and end-user administration tasks in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express
- Describe the telephony features supported in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express
- Administer users in Cisco Unity Connection and Cisco Unified Presence, and enable the most commonly used features for both applications
- Describe how to maintain a Cisco Unified Communications solution

Prerequisites

The knowledge and skills you must have before attending this course are as follows:

- Working knowledge of converged voice and data networks
- Basic knowledge of Cisco IOS gateways
- Basic knowledge of Cisco Unified Communications Manager and Cisco Unity Connection

Course Outline

Module 1: Overview of Cisco Unified Communications Solutions

Describe the components of a Cisco Unified Communications solution and identify call signaling and media stream flows.

Lesson 1: Understanding the Components of Cisco Unified Communications Solutions

This lesson defines the role of Cisco Unified Communications components in a Cisco Unified Communications solution.

- Cisco Unified Communications Manager Express Overview
- Cisco Unified Communications Manager Overview
- Cisco Unity Connection Overview
- Cisco Unified Presence Overview

Lesson 2: Understanding the Characteristics of Cisco Unified Communications Solutions

This lesson defines the characteristics of a Cisco Unified Communications solution and what needs to be considered when sending voice over packet-based networks.

- Overview of Traditional Voice Networks
- Overview of Converged Voice Networks
- Overview of Packet-Oriented Networks

Module 2: Overview of Administrator and End-User Interfaces

Provide an overview of administrator and end-user interface options in Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity Express, Cisco Unity Connection, and Cisco Unified Presence.

Lesson 1: Understanding Administrator Interfaces

This lesson defines the administrator interfaces of Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity Express, Cisco Unity Connection, and Cisco Unified Presence.

- Cisco Unified Communications Manager Administrator Interfaces
- Cisco Unity Connection Administrator Interfaces
- Cisco Unified Presence Administrator Interfaces
- Cisco Unified Communications Manager Express Administrator Interfaces
- Cisco Unity Express Administrator Interfaces

Lesson 2: Understanding End-User Interfaces

This lesson defines the end user interfaces of Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity Express, Cisco Unity Connection, and Cisco Unified Presence.

- Cisco Unified Communications Manager End-User Interfaces
- Cisco Unified Communications Manager Express End-User Interfaces
- Cisco Unity Express End-User Interfaces
- Cisco Unity Connection End-User Interfaces
- Cisco Unified Presence End-User Interfaces

Module 3: Call Flows in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express

Understand call flows in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

Lesson 1: Understanding Call Flows and Call Legs

This lesson defines the characteristics of call flows and the associated call legs in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

- Cisco Unified Communications Manager Call Flows and Call Legs
- Cisco Unified Communications Manager Express Call Flows and Call Legs

Lesson 2: Understanding the Configuration Components Impacting Call Flows in Cisco Unified Communications Manager

This lesson defines configuration components (class of service, Call Admission Control, route lists, route groups, and so on) that impact call flows in Cisco Unified Communications Manager.

- Cisco Unified Communications Manager Class of Service
- Cisco Unified Communications Manager Call Routing

Lesson 3: Understanding the Configuration Components Impacting Call Flows in Cisco Unified Communications Manager Express

This lesson defines configuration components (class of restriction, dial peers, and so on) that impact call flows in Cisco Unified Communications Manager Express.

- Cisco Unified Communications Manager Express Class of Restriction
- Cisco Unified Communications Manager Express Call Routing

Module 4: Endpoint and End User Administration

Perform endpoint and end-user administration tasks in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

Lesson 1: Understanding Endpoint Characteristics and Configuration Requirements

This lesson defines the characteristics of endpoints in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express and the related configuration requirements.

- IP Phone Registration Process
- IP Phone Configuration Requirements in Cisco Unified Communications Manager
- IP Phone Configuration Requirements in Cisco Unified Communications Manager Express

Lesson 2: Understanding Endpoint Implementation Options

This lesson defines how to implement endpoints in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

- Implementing IP Phones in Cisco Unified Communications Manager
- Implementing IP Phones in Cisco Unified Communications Manager Express

Lesson 3: Understanding End-User Characteristics and Configuration Requirements

This lesson defines the characteristics of end users in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express and the related configuration requirements.

- End Users in Cisco Unified Communications Manager
- End Users in Cisco Unified Communications Manager Express

Lesson 4: Understanding End-User Implementation Options

This lesson defines how to implement end users in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

- Implementing End Users in Cisco Unified Communications Manager
- Implementing End Users in Cisco Unified Communications Manager Express

Module 5: Enablement of End User Telephony and Mobility Features

Describe the telephony features supported in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

Lesson 1: Understanding Telephony Features

This lesson defines how to explain the Cisco Extension Mobility feature and its advantages, drawbacks, and architectural integration in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

- Cisco Extension Mobility in Cisco Unified Communications Manager
- Call Coverage in Cisco Unified Communications Manager
- Intercom in Cisco Unified Communications Manager
- Native Cisco Unified Communications Manager Presence
- Cisco Unified Communications Manager Express Features

Lesson 2: Enabling Telephony Features

This lesson defines how to enable telephony features for end users in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

- Configuring Extension Mobility in Cisco Unified Communications Manager
- Configuring Call Coverage in Cisco Unified Communications Manager
- Configuring Intercom Functionality in Cisco Unified Communications Manager
- Configuring Native Presence in Cisco Unified Communications Manager
- Configuring Cisco Unified Communications Manager Express Features

Lesson 3: Understanding Mobility Features

This lesson defines the characteristics of mobility features in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

- Mobile Connect in Cisco Unified Communications Manager
- Mobile Voice Access in Cisco Unified Communications Manager
- Mobility in Cisco Unified Communications Manager Express

Lesson 4: Enabling Mobility Features

This lesson defines how to enable mobility features for end users in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.

- Configuring Mobile Connect in Cisco Unified Communications Manager
- Configuring Mobile Voice Access in Cisco Unified Communications Manager
- Configuring Mobility in Cisco Unified Communications Manager Express

Module 6: Enablement of Cisco Unity Connection and Cisco Unified Presence

Administer users in Cisco Unity Connection and Cisco Unified Presence, and enable the most commonly used features for both applications.

Lesson 1: Understanding Cisco Unity Connection

This lesson defines the characteristics of Cisco Unity Connection.

- Cisco Unity Connection Overview
- Cisco Unity Connection Features

Lesson 2: Understanding End User and Voice Mailbox Characteristics and Configuration Requirements

This lesson defines the characteristics of end users and mailboxes in Cisco Unity Connection and the related configuration requirements.

- Cisco Unity Connection End Users Templates
- Cisco Unity Connection End Users
- Cisco Unity Connection Voice Mailboxes

Lesson 3: Understanding End User and Voice Mailbox Implementation Options

This lesson defines how to implement end users and voice mailboxes in Cisco Unity Connection.

- Configuring Cisco Unity Connection End Users Templates
- Configuring Cisco Unity Connection End Users
- Importing End Users into Cisco Unity Connection
- Managing Cisco Unity Connection Message Storage

Lesson 4: Understanding Cisco Unified Presence

This lesson defines the characteristics of Cisco Unified Presence.

- Cisco Unified Presence Features and Functionality
- Cisco Unified Presence Architecture

Lesson 5: Enabling Cisco Unified Presence

This lesson defines how to enable Cisco Unified Presence for end users.

- Setting Up End Users in Cisco Unified Communications Manager for Cisco Unified Personal Communicator
- Configuring End Users in Cisco Unified Presence
- Troubleshooting Cisco Unified Personal Communicator
- Configuring Cisco IP Phone Messenger

Module 7: Cisco Unified Communications Solutions Maintenance

Describe how to maintain a Cisco Unified Communications solution.

Lesson 1: Providing End-User Support

This lesson defines how to provide end-user support in case of basic connectivity or voice quality issues.

- Troubleshooting Phone Registration Issues
- Switch Configuration Overview
- Voice Quality Issues

Lesson 2: Understanding Cisco Unified Communications Manager Reports

This lesson defines Cisco Unified Communications Manager reports and how they are generated.

- Generating Reports on Cisco Unified Communications Manager
- Analyzing the Generated Reports

Lesson 3: Understanding Cisco Unified Communications Manager CDR Analysis and Reporting Tool Reports

This lesson defines Cisco Unified Communications Manager CAR tool reports and how they are generated.

- Cisco Unified Communications Manager CAR Tool Overview
- CDR Management and System Settings
- Generating CDR Reports

Lesson 4: Monitoring the System with Cisco Unified Real-Time Monitoring Tool

This lesson defines Cisco Unified RTMT and how to use it for system monitoring.

- Cisco Unified RTMT Overview
- Monitoring the System with Cisco Unified RTMT
- Monitoring Cisco Unified Communications Manager with Cisco Unified RTMT

Lesson 5: Monitoring Voice Mail in Cisco Unity Connection

This lesson defines the monitoring options in Cisco Unity Connection and how they can be used to monitor voice mail usage.

- Generating Reports on Cisco Unity Connection
- Analyzing the Cisco Unity Connection Reports
- Using Reports for Troubleshooting and Maintenance

Lesson 6: Understanding the Disaster Recovery System

This lesson defines the Disaster Recovery System and how it is used for backup and restore tasks in Cisco Unified Communications systems.

- Disaster Recovery System Overview
- Backing Up Cisco Unified Communications Solutions
- Restoring Cisco Unified Communications Solutions

Appendix 1: Implementing VLANs for Endpoints

This appendix describes VLANs and trunking and how and when to implement them on endpoints appropriately. The appendix also describes how to route between VLANs.

- Understanding VLANs
- Understanding Trunking with 802.1Q
- VLAN Infrastructure
- Configuring Voice VLAN in Access Ports Using Cisco IOS Software
- Configuring Trunk Ports Using Cisco IOS Software
- Understanding Inter-VLAN Routing
- Configuring Inter-VLAN Routing

Labs

- Lab 2-1: Exploring Administrator Interfaces
- Lab 2-2: Exploring End-User Interfaces
- Lab 3-1: Exploring Call Flows in Cisco Unified Communications Manager
- Lab 3-2: Exploring Call Flows in Cisco Unified Communications Manager Express
- Lab 4-1: Implementing Endpoints
- Lab 4-2: Implementing End Users
- Lab 5-1: Enabling Telephony Features
- Lab 5-2: Enabling Mobility Features
- Lab 6-1: Implementing End Users and Voice Mailboxes
- Lab 6-2: Enabling Cisco Unified Presence
- Lab 7-1: Providing End-User Support (optional, if course timing permits)
- Lab 7-2: Generating Cisco Unified Communications Manager Reports
- Lab 7-3: Generating Cisco Unified Communications Manager CAR Tool Reports
- Lab 7-4: Monitoring the System with Cisco Unified RTMT
- Lab 7-5: Monitoring Usage of Cisco Unity Connection
- Lab 7-6: Backing Up Cisco Unified Communications Manager Using the Disaster Recovery System (optional)