Implementing Cisco Video Network Devices, Part 2 (VIVND2)

Who should attend?

The primary audience for this course is as follows:

- Network administrators and network engineers

The secondary audience for this course is as follows:

- System engineers

Certifications

This course is part of the following Certifications:

- Cisco Certified Network Associate Video (CCNA VIDEO)
- Cisco Video Network Specialist

Prerequisites

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

- Interconnecting Cisco Network Devices Part 1 Version 2.0 (ICND1) and Interconnecting Cisco Network Devices Part 2 Version 2.0 (ICND2) (or equivalent)
- Knowledge of Video Foundation Topics listed in the Implementing Cisco Video Network Devices, Part 1 (VIVND1) v1.0 course

Course Objectives

Upon completing this course, you will be able to meet these overall objectives:

- Describe the components and architectures of Cisco business video solutions
- Implement Cisco Unified Communications and Cisco Collaboration video endpoints
- Implement Cisco TelePresence video endpoints
- Implement multipoint conferencing on Cisco video endpoints

Course Content

This course is designed to provide you with the necessary knowledge and skills that are needed to implement various Cisco video endpoints in converged Cisco video infrastructures. Cisco business video solutions have four major Cisco Medianet application components:

- Cisco Unified Communications and Collaboration
- Cisco TelePresence
- Cisco Digital Media Suite
- Cisco Video Surveillance

This course describes Cisco business video solutions and enables students to implement and troubleshoot Cisco Unified Communications, Cisco Collaboration and Cisco TelePresence endpoints in different Cisco business video solution architectures.
Detailed Course Outline

1: Cisco Business Video Solutions

Describe the components and architectures of Cisco business video solutions

- Understanding Cisco Video Collaboration
  - Conventional Video Conferencing
  - Cisco Collaboration Solutions
  - Cisco Video-Collaboration Solution Components
  - Cisco Video-Collaboration Architecture
- Understanding Cisco Video and Content Delivery
  - Conventional Digital Media Architecture
  - Cisco DMS
  - Cisco Video- and Content-Delivery Components
  - Cisco Video- and Content-Delivery Architecture
- Understanding Cisco Video Surveillance
  - Typical Video-Surveillance Architecture Evolution
  - Cisco Connected Physical Security Solution
  - Cisco Video Surveillance Components
  - Cisco Video Surveillance Solution Architecture
- Discovering Central Video Endpoint Control Elements
  - Cisco Unified Communications Manager Video-Endpoint Registration Process
  - Cisco Unified Communications Video-Endpoint Control Plane Discovery Steps

2: Cisco Unified Communications and Collaboration Video Endpoints

Implement Cisco Unified Communications and Cisco Collaboration video endpoints

- Understanding Cisco Unified Communications and Cisco Collaboration Video Endpoint Characteristics and Installation
  - Cisco Unified Communications and Cisco Collaboration Video-Endpoint Portfolio
  - Cisco Unified Communications IP Videophone Characteristics
  - Cisco Unified Communications and Cisco Collaboration Video-Endpoint Installation
- Configuring Cisco Unified Communications and Collaboration Video Endpoints
  - Cisco Unified Communications Video-Endpoint Setup
  - Cisco Unified Communications Video-Endpoint Configuration
  - Cisco Jabber Configuration and Calibration
  - Cisco Unified Communications Video-Endpoint Status Verification
- Operating and Troubleshooting Cisco Unified Communications Video Endpoints
  - Local Cisco Unified Communications Video-Endpoint Log Verification
  - Identification and Isolation of Cisco Unified Communications Video-Endpoint Registration Issues
  - Identification and Isolation of Cisco Unified Communications Video-Endpoint Call-Setup Issues
  - Identification and Isolation of Cisco Unified Communications Video-Endpoint Media Issues

3: Cisco TelePresence Endpoints

Implement Cisco TelePresence video endpoints.

- Understanding Cisco TelePresence Endpoint Characteristics and Installation
  - Cisco TelePresence Endpoint Portfolio
  - Cisco TelePresence CTS Software-Based Endpoint Characteristics
  - Cisco TelePresence TC and TE Software-Based Endpoint Characteristics
Cisco TelePresence System Profile Series
Cisco Jabber Video for TelePresence Characteristics

- Configuring Cisco TelePresence CTS Software-Based Endpoints
  - Cisco TelePresence CTS Software-Based Endpoint Setup
  - Cisco TelePresence CTS Software-Based Endpoint Reset
  - Cisco TelePresence CTS Software-Based Endpoint Configuration
  - Cisco TelePresence CTS Software-Based Endpoint Peripheral Calibration

- Configuring Cisco TelePresence TC and TE Software-Based Endpoints
  - Cisco TelePresence TC and TE Software-Based Endpoint Setup
  - Cisco TelePresence TC and TE Software-Based Endpoint Reset
  - Cisco TelePresence TC and TE Software-Based Endpoint Peripheral Configuration and Calibration
  - Cisco TelePresence TC and TE Software-Based Endpoint Network and Call Settings Configuration
  - Cisco TelePresence TC and TE Software-Based H.323 Endpoint Configuration
  - Cisco TelePresence TC and TE Software-Based SIP Endpoint Configuration
  - Firewall Traversal Overview
  - Cisco TelePresence TC and TE Software-Based Endpoint Video Features Configuration
  - Cisco TelePresence TC and TE Software-Based Endpoints with Cisco Unified Communications Manager
  - Cisco Jabber Video for TelePresence Configuration and Calibration
  - User-Facing Call Feature Configuration

- Operating and Troubleshooting Cisco TelePresence Endpoints
  - Cisco TelePresence TC and TE Software-Based Endpoint Hardware, Software, Log, and Status Information Collection
  - Local Cisco TelePresence TC and TE Software-Based Endpoint Software and Configuration Maintenance
  - Cisco TelePresence TC and TE Software-Based Endpoint Issue Identification and Isolation
  - Cisco TelePresence CTS Software-Based Endpoint Hardware, Software, Log, and Status Information Collection
  - Cisco TelePresence CTS Software-Based Endpoint Issue Identification and Isolation
  - Cisco Jabber Video for TelePresence Issue Identification and Isolation

4: Multipoint Conferencing

Implement multipoint conferencing on Cisco video endpoints.

- Understanding Cisco Multipoint Conferencing
  - Cisco TelePresence Multipoint Media Infrastructure
  - Cisco TelePresence MCU
  - Cisco TelePresence Server
  - Cisco TelePresence Multipoint Switch
  - Ad Hoc Multipoint Conferences
  - Cisco TMS
  - Cisco WebEx Solutions

- Configuring and Monitoring Cisco Multipoint Conferencing
  - Configuring Cisco TelePresence MultiSite
  - Configuring Cisco TelePresence Multiway
  - Scheduling Conferences Using Cisco TMS
  - Monitoring Conferences Using Cisco TMS
  - Setting Up and Accessing Cisco TelePresence MCU Conferences Using the Auto-Attendant
  - Verifying Conferences and Call Statistics on the Cisco TelePresence MCU
Appendix: Cisco DMP

Implement Cisco DMP endpoints

- Understanding Cisco DMP Characteristics and Installation
  - Cisco DMP Components
  - Cisco DMP Characteristics
  - Cisco DMP Installation
- Configuring the Cisco DMP
  - Cisco DMP Setup Overview
  - Cisco DMP Reset and Hardening
  - Cisco DMP Peripheral Configuration and Calibration
  - Cisco DMP File Storage Configuration
  - Cisco DMP Network and Power Source Configuration
  - Cisco DMP Status Verification
  - Cisco DMP Media Buffer Adjustment
  - Cisco DMP TVzilla Browser Settings
  - Cisco DMP Media Play Control and Verification
- Operating and Troubleshooting the Cisco DMP
  - Cisco DMP Hardware, System Logs, and Status Information Collection
  - Local Cisco DMP Software Maintenance
  - Central Cisco DMP Software Maintenance and Status Verification
  - Cisco DMP Peripheral and Network Issue Identification and Isolation

Labs

- Lab 1-1: Discovering the Endpoint Access Network
- Lab 1-2: Discovering Central Endpoint Control Elements
- Lab 2-1: Implementing Cisco Unified Communications and Cisco Collaboration Video Endpoints
- Lab 2-2: Operating and Troubleshooting Cisco Unified Communications and Cisco Collaboration Video Endpoints
- Lab 3-1: Implementing Cisco TelePresence CTS Series Endpoints
- Lab 3-2: Implementing Cisco TelePresence TC and TE Software-Based Endpoints
- Lab 3-3: Operating and Troubleshooting Cisco TelePresence Endpoints
- Lab 4-1: Implementing Multipoint Calls on Cisco Collaboration Endpoints
- Lab A-1 (Appendix): Implementing the Cisco DMP
- Lab A-2 (Appendix): Operating and Troubleshooting the Cisco DMP