Customer Voice Portal Implementation v8.0 (CVPI)

Course Objectives

- Explain the components, function, and call flow of a Cisco Unified CVP solution when it is deployed in either a standalone or comprehensive model
- Configure a functional Cisco Unified CVP comprehensive deployment model with Cisco Unified ICM Enterprise
- Demonstrate the use of the six Cisco Unified CCE microapplications that are available to support caller interaction with Cisco Unified CVP
- Describe Voice Extensible Markup Language (VXML) as a technology and describe the benefits that it provides to Cisco Unified CVP; install and configure the Cisco Unified CVP VXML solution for Cisco Unified CVP
- Execute the steps that are required to configure a Cisco Unified CVP environment to provide historical data and to configure and use the diagnostic features and tools to ensure end-to-end serviceability
- Design a Cisco Unified CVP solution that is designed for failover protection and high availability and use the recommended troubleshooting techniques to isolate and correct system failures

Prerequisites

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

- Cisco CCNA®
- Knowledge and skills equivalent to having attended the Cisco Voice over IP (CVOICE) course
- Knowledge and skills equivalent to having attended the Cisco IP Telephony Part 1 (CIPT1) course
- Experience and knowledge about Cisco Unified Contact Center Enterprise

Course Outline

Module 1: Cisco Unified CVP Technical Overview

This module explains the components, function, and call flow of a Cisco Unified Customer Voice Portal (CVP) solution when it is deployed in either a standalone or comprehensive model.

Lesson 1: Exploring Cisco Unified CVP

- Identify key features of Cisco Unified CVP
- Describe the compelling reasons to implement Cisco Unified CVP
- List features of Cisco Unified CVP

Lesson 2: Describing Components and Capabilities

- Identify the native components of a Cisco Unified CVP solution and illustrate the function of the main processes within each component
- Explain other products that are not native to Cisco Unified CVP that can be integrated with Cisco Unified CVP, and the purpose of these non-native products
- Compare solution components and requirements

Lesson 3: Exploring Deployment Models and Call Flows

- Describe the geographic, physical, and deployment models of Cisco Unified CVP
- Describe the standalone deployment model and how a call flows through this model
- Describe the call director deployment model and how a call flows through this model
- Describe the comprehensive deployment model and how a call flows through this model
- Describe the VRU-only deployment model and how a call flows through this model
- View a call flow using tools built into the Cisco Unified CVP components

Module 2: Cisco Unified CVP Comprehensive

This module describes how to configure a functional Cisco Unified CVP Comprehensive deployment model with Cisco Unified Intelligent Contact Management (ICM) Enterprise.

Lesson 1: Examining Cisco Unified CVP Comprehensive

- Discuss the role that Unified CVP plays in providing IVR and VRU functionality in a Cisco Unified VoIP environment
- List the major steps that are required to set up Cisco Unified CVP Comprehensive with Cisco Unified ICM Enterprise

Lesson 2: Upgrading, Installing, and Configuring Cisco Unified CVP Software

- Provide an overview of the Cisco Unified CVP 8.0 installation steps
- Configure NTP for a Cisco Unified CVP deployment
- Install Cisco Unified CVP 8.0
- Explain the role of the Cisco Unified CVP Operations Console
- Perform the initial setup and configuration of the Cisco Unified CVP Call Server using the Cisco Unified CVP Operations Console
- Verify the Cisco Unified CVP installation status
- Describe Cisco Unified CVP licensing
- Perform Cisco Unified CVP upgrades

Lesson 3: Configuring SIP and Cisco IOS Gateways for Cisco Unified CVP

- Describe the Cisco IOS gateway and the role that it plays in a Cisco Unified CVP environment
- Describe the basics of control that are affected through gateway signaling
- Configure SIP proxy and SIP service for a call server using the Cisco Unified CVP Operations Console
- Configure a Cisco IOS gateway using the Cisco Unified CVP Operations Console
- Configure a Cisco IOS gateway using the CLI

Lesson 4: Configuring Cisco Unified ICM Enterprise for Cisco Unified CVP

- Add the Unified ICM server to the Cisco Unified CVP Operations Console
- Describe the major steps that are required to configure Cisco Unified ICM Enterprise for Cisco Unified CVP in a Comprehensive deployment
- Describe how Cisco Unified ICM Enterprise network VRU types relate to Cisco Unified CVP deployment model selection
- Configure Cisco Unified ICM Enterprise in a Cisco Unified CVP Comprehensive deployment

Lesson 5: Configuring Cisco Unified Communications Manager for Cisco Unified CVP

- Describe the configuration steps that are required to configure Cisco Unified Communications Manager for Cisco Unified CVP
- Configure Cisco Unified Communications Manager in Cisco Unified CVP Operations Console

Module 3: Cisco Unified ICM Enterprise Scripting to Support Cisco Unified CVP

This module demonstrates the use of the six Cisco Unified CCE microapplications that are available to support caller interaction with Cisco Unified CVP.

Lesson 1: Introducing Scripting

- Identify Cisco Unified ICM Enterprise script editor fundamental tasks
- Discuss media server microapplications, server configuration, and media file placement as they relate to Cisco Unified CVP scripting
- Describe how Cisco Unified ICM Enterprise ECC variables relate to the Cisco Unified ICM Enterprise script processing
- Describe the media server files

Lesson 2: Implementing Cisco Unified ICM Enterprise Scripting Microapplications

- Configure and implement Play Media
- Configure and implement Menu
- Configure and implement Play Data
- Configure and implement Get Data
- Configure and implement Get Speech
- Configure and implement Capture

Lesson 3: Configuring Cisco Unified ICM Enterprise Scripting Using Microapplications

- Identify components in the process of Cisco Unified ICM Enterprise scripting
- Build a Cisco Unified CVP script

Lesson 4: Enabling Transfers and Reroute on No Answer

- Describe the call transfer types and handling considerations
- Enable subsequent transfer and queuing of calls in a Cisco Unified CVP environment

Module 4: Cisco Unified CVP VXML Overview

This module describes Voice Extensible Markup Language (VXML) as a technology, describes the benefits that it provides to Cisco Unified CVP, and describes how to install and configure the Cisco Unified CVP VXML solution for Cisco Unified CVP.

Lesson 1: Exploring VXML

- Describe the benefits of VXML
- Describe the components of the Cisco Unified CVP VXML solution

Lesson 2: Installing and Configuring VXML

- Configure the Cisco Unified CVP VXML Server in the Cisco Unified CVP Operations Console
- Configure a Cisco Unified Call Studio project
- Deploy a Cisco Unified Call Studio project
- Describe the administrative tasks necessary to ensure that applications are running correctly on the VXML server
- Build, validate, and deploy a project that exchanges information with a Cisco Unified ICM Enterprise script

Lesson 3: Exploring Courtesy Callback

- Define courtesy callback
- Describe a typical courtesy callback call flow
- Discuss design considerations when planning for a courtesy callback
- Configure the Cisco Unified CVP components for courtesy callback

Module 5: Events, Log Files, and Reporting

This module describes how to execute the steps that are required to configure a Cisco Unified CVP environment to provide historical data and how to configure and use the diagnostic features and tools to ensure end-to-end serviceability.

Lesson 1: Configuring Cisco Unified CVP Reporting

- Describe Cisco Unified CVP reporting
- Configure the reporting server
- Configure the VXML server for reporting
- Manage the database
- Perform a database backup
- Perform a database restore
- Manager database users
- Use Cisco Unified CVP templates and integrate with the Cisco Unified ICM Enterprise database

Lesson 2: Utilizing Events and Log Files

- Describe the overall Cisco Unified CVP serviceability model
- Define the Cisco Unified CVP subsystem statistics

- Configure Cisco Unified CVP logging and event notifications
- Implement SNMP to facilitate device communications
- Configure a Cisco Unified CVP syslog to record events
- Define Cisco Support Tools and its role in accessing information
- Define Cisco Unified System CLI
- Describe the Cisco Unified Analysis Manager tool

Module 6: Failover, Diagnostics, and Troubleshooting

This module describes how to design a Cisco Unified CVP solution that is designed for failover protection and high availability. This module also describes how to use the recommended troubleshooting techniques to isolate and correct system failures.

Lesson 1: Designing Failover and High Availability

- Describe how to design a Cisco Unified CVP solution for high availability
- Configure the ingress gateway for high availability and load balancing
- Describe failover and load balancing between the SIP proxy and the call server
- Describe how to use server groups on the call server for failover and load balancing
- Describe how to use CSS and ACE to protect against failures of media servers, VXML servers, MRCP devices, and call servers
- Configure redundancy for media servers with a CSS or ACE, and without a CSS or ACE
- Describe the Cisco Unified CVP VXML Server high-availability options
- Describe high-availability options for ASR and TTS
- Explain how a high-availability design would protect against Cisco Unified Communications Manager failures
- List the considerations for protecting a Cisco Unified CVP solution from Cisco Unified ICM Enterprise failures

Lesson 2: Troubleshooting

- Define basic Cisco Unified CVP troubleshooting strategies
- Use device status indications to isolate problems
- Troubleshoot an ingress and egress Cisco IOS gateway
- Troubleshoot Cisco VXML Gateways
- Troubleshoot Cisco Unified ICM Enterprise
- Troubleshoot transfers
- Describe online support assistance methods

CVPI v8.0 Hands-On Lab Exercises:

- Lab 1-1: Making Phone Calls
- Lab 1-2: Exploring Your Router
- Lab 1-3: Starting Cisco Unified ICM Enterprise Components
- Lab 2-1: Installing Cisco Unified CVP
- Lab 2-2: Configuring Cisco IOS Software for Cisco Unified CVP
- Lab 2-3: Configuring Cisco Unified ICM for Cisco Unified CVP
- Lab 2-4: Preparing a Simple Script
- Lab 3-1: Creating Cisco Unified ICM Enterprise Scripting for Cisco Unified CVP
- Lab 3-2: Using Tools to Observe Your Script

- Lab 3-3: Configuring Calls Using SIP with Proxy
- Lab 3-4: Configuring Calls into Cisco Unified CVP via CTI Route Point
- Lab 3-5: Configuring Subsequent Transfers via Cisco Unified ICM Enterprise DN Plan
- Lab 4-1: Installing Cisco Unified Call Studio
- Lab 4-2: Creating and Deploying a Cisco Unified Call Studio Project
- Lab 4-3: Integrating VXML Applications with Cisco Unified ICM Enterprise
- Lab 5-1: Backing Up the Reporting Server
- Lab 6-1: Troubleshooting Cisco Unified CVP
- Lab 6-2: Fixing a Cisco Unified CVP Deployment