DEPLOYING UNIFIED CONTACT CENTER ENTERPRISE (DUCCE)

Deploying Cisco Unified Contact Center Enterprise (DUCCE) **v2.0 enhanced with UCCE 11.6 Labs** is a 5-day instructor-led course presented by training partners. This course allows learners to deploy the Unified CCE v11.6 solution including installation, deploying HA and using troubleshooting tools to identify issues with inbound and outbound Contact Center functionality.

This course is intended for those installing the Unified CCE solution, or those providing Level 3 solution support. This course also serves as a foundation for the two corresponding UCCE Administration courses, but is not a prerequisite.

Students will learn enough about CCE scripting in this course to ensure system functionality only. A separate course exists for advanced scripting.

Why Attend with Current Technologies CLC

- Our Instructors are 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

Objective

Upon completing this course, the student will be able to meet these objectives:

- Identify the basic components and operations of the Unified CCE solution
- Use the available UCCE tools to complete a basic UCCE system installation
- Discuss the installation and configuration steps required to support agent functionality in a UCCE deployment
- Install a basic CCE VXML Solution
- Install, configure and run a CCE Outbound Option Campaign
- Describe how to support CCE

Course Duration

5 day

Course Price

$4,395.00

Methods of Delivery

- Instructor Led

- Virtual Instructor Led

Certification Exam

N/A

Cisco CE Credits

N/A

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Who Should Attend

The primary audience for this course is as follows:

- Cisco Unified Communications System
- Channel Partner/Reseller
- System Engineers
- Customers deploying and maintaining Cisco Unified Contact Center Enterprise products

COURSE OUTLINE

Module 1: Cisco Unified Contact Center Enterprise Foundations

Introducing UCCE

- Describe the Cisco Unified Contact Center Solution for enterprise customers
- Identify the attributes of the Unified CCE Solution
- Identify the components of the Unified CCE Solution
- Describe naming conventions of the components of the Unified CCE solution.
- List optional components in the Unified CCE solution
- Describe the attributes of various agent desktop options in the Unified CCE solution
- Identify new features provided after Unified CCE release version 8.X

Unified CCE Architecture and Components

- Provide an overview of the UCCE components and high level network architecture
- Provide an overview of the role of gateways in a UCCE environment
- Provide an overview of CUCM high level architecture and functionality
- Identify supported IP phones
- Provide a high level overview of ICM network architecture components and fault tolerance principles
- Define a Unified CVP and its characteristics
- Define the purpose and function of VXML
- List the features of Unified CVP
- Recognize additional components of UCCE
- Introduce the CCMP utility
- Introduce the CUIC reporting server

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- Distinguish between different UCCE deployment models
- Identify features of the Packaged CCE solution

UCCE Terms, Routing and Additional Components

- Identify ICM terms
- Identify three call flow types found in CCE deployments
- Recognize additional components of UCCE
- Introduce the CCMP utility
- Introduce the CUIC reporting server
- Distinguish between different UCCE deployment models
- Identify features of the Packaged CCE solution

Accessing UCCE Tools

- Examine how to use ccm admin tools
- Examine how to utilize the Unified CCE Tools icon
- Examine how to utilize the CVP Ops console
- Introduce Telnet and Secure Shell access tools for access to voice gateways
- Identify how to manage interface access to the CCMP

Module 2: Preparing UCCE for Basic IVR Scripting

UCCE Protocols and Call Flows

- Identify the UCCE comprehensive call flows
- Describe the protocols associated with a comprehensive UCCE deployment
- Provide a high-level checklist for a UCCE installation

Using Domain Manager

- Summarize an overview of Microsoft Active Directory
- Describe the Active Directory Organizational Units associated with UCCE

Introducing the Unified CCE Main Installer

- Identify the features of the ICM main installer media
- Describe the use of the UCCE domain manager tool
- Identify how to start installation using the main installer

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- Describe the installation procedures associated with the UCCE web setup tool
- Identify how to setup Peripheral Gateways
- Describe how to launch the Admin Client Installer

Central Controller Installation

- Describe the installation procedures associated with the UCCE web setup tool
- Describe how to set up the Logger database using ICM dba
- Describe how to use Web Setup to add and deploy Routers
- Describe how to use Web Setup to add and deploy Loggers
- Identify how to use the Diagnostic Framework Portico

Installing Admin Data Servers and Clients

- Identify different types of Admin workstations
- Demonstrate how to create databases using the ICM dba tool
- Show how to configure the Admin Data Server by using Web Admin
- Identify how to install Admin Data Client using setup tools
- Describe how to access Configuration Manager and how to use it to populate the ICM database

Configuring ICM for CVP

- Identify the configuration requirements necessary for a Unified CVP comprehensive deployment
- Describe how to configure Unified ICM to integrate with the Unified CVP
- Describe how to add the VRU to the configuration of Unified ICM in the PG Explorer

Configuring CVP for UCCE

- Provide an overview of the steps required to install Unified CVP 8.0
- Describe the Unified CVP installation
- Describe the Operations Console installation
- Describe the Remote Operations installation
- Describe how to install the Reporting Server

UCCE Terms, Routing and Additional Components

- Identify ICM terms
- Identify three call flow types found in CCE deployments

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- Recognize additional components of UCCE
- Introduce the CCMP utility
- Introduce the CUIC reporting server
- Distinguish between different UCCE deployment models
- Identify features of the Packaged CCE solution
- Examine the Ops Console as an administration and management tool for CVP components
- Identify the initial setup and configuration of the Unified CVP Call Server
- Show how to use the VXML Server Configuration Tab Settings table to configure a VXML Server
- Describe how to add a Reporting Server using the Reporting Server General Configuration Settings table
- Describe how to configure a Media Server by using the Ops Console
- Examine Licensing for components of the Unified CVP system
- Identify how to use the Ops Console to verify the status of CVP components
- Identify the options for Routing to SIP end points in a CVCP deployment

UCCE Voice Gateway Internetworking Considerations

- Define the SIP protocol and understand its uses
- Identify VXML gateway models that are supported by Unified CVP
- Describe how to configure gateways in the Unified CVP operations console and how to transfer files
- Describe how to use the VXML gateway for file transfer
- Explore the options for routing SIP end points in a CVCP deployment
- Describe how to configure and add an SIP Proxy Server to the operations console
- Describe how to configure CUCM

Basic IVR Scripting with Microapps

- Describe two methods of Cisco Unified CVP script editors
- Discuss the function of ICM Script Editor in a UCCE environment
- Describe how to use ICM Script Editor nodes
- Describe how to configure Script Editor nodes
- Describe how to schedule ICM scripts
- Deploy a simple UCCE script using microapps

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Module 3: Preparing UCCE for Basic Agent Functionality

Configure UCM to Support UCCE

- Identify protocol considerations when tracking a CCE call destined for ICM
- Identify how to configure UCM in a UCCE environment
- Identify how to configure PG by using ICM Configuration Manager
- Describe how to add the JTAPI Client for the connection to the Unified CM
- Recognize how to register and associate Route Point with a user
- Describe how to access and utilize RTMT
- Describe how to create call type for testing and build a test script

Installing UCCE CTI Software

- Explain CTI Functionality
- Describe how to install the CTI Server using the PG setup tool
- Recognize how to install the CTIOS Server
- Describe how to install the CTIOS Agent Desktop
- Identify how to configure Agents and Skill Groups
- Describe the benefits of using agent targeting rules and how they are configured
- Identify how to test a script and make a test call
- UCCE Configuration and Scripting for Additional Agent and IVR Functionality
- Recognize how ECC variables, microapps and media files effect scripting for Unified CCE
- Define the two types of variables
- List the six microapps and examples of each
- Identify how to access media servers and audio files provided with CVP server installation
- Examine the use of gateway prompt caching methods to optimize performance
- Examine scripting with microapplications
- Identify how to use script editor queuing nodes to define routing targets in an ICM script
- Enabling Transfers and RONA
- Identify different types of call transfers
- Identify subsequent transfer considerations
- Describe how to configure ICM to support transfers
- Describe how to configure UCM to support transfers.

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- Identify RONA calls behavior and discuss contingency treatment of such calls

Module 4: Installing and Configuring CCE VXML Solution

Basic VXML Functionality
- Identify the benefits and challenges of using VXML
- Provide an overview of the application of VXML in a CVP deployment

Installing and Configuring VXML Solution
- Configure VXML Server settings using CVP Ops Console
- Examine the basic features of Call Studio and build a basic application
- Deploy call studio project and ensure correct deployment
- Integrate ICM script with VXML application to pass data between ICM and CVP

Exploring Courtesy Callback
- Define Courtesy Callback and its components
- Examine the flow of a Courtesy Callback
- Examine the design considerations of Courtesy Callback
- Describe how to configure a script for Courtesy Callback

Module 5: Installing CCE Outbound Option

Introduction to Outbound Option
- Explore the Outbound Option add-on for Unified CCE
- Identify components of Outbound Option
- Compare/contrast SIP and SCCP dialer types
- Explore the features and operation of each Outbound option dialing mode
- Discuss the use of ICM Admin and Routing scripts to control the features of an Outbound Option

Campaign
- Describe the SIP call flow type
- Describe SIP Dialer design considerations
- Discuss voice Gateway design considerations

Outbound Option Installation and Configuration

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- Identify how to install and configure Outbound Option
- Describe Voice Gateway and unified CM considerations
- Show how to verify successful installation of Outbound Option

Configuring Outbound Option for Agent and IVR Campaigns

- Describe the features of an agent campaign and a pre-recorded (VRU) campaign
- Define prerequisite configurations for Outbound campaigns
- Explore the Agent-based campaign outbound option
- Describe how to script for agent-based campaign
- Show how to configure IVR based campaign
- Describe how to script for IVR based campaign

Module 6: Supporting CCE

ICM Processes

- Describe ICM deployment Simple Startup process
- Describe the ICM Central Controller startup process
- Describe the Peripheral Gateway startup process
- Describe the Administration and Data Server startup processes
- Describe the Failover and High Availability features for ICM components in a UCCE environment
- Examine how the Central Controller Agent process works as part of the fault tolerant architecture
- Discuss failure scenarios of the Central Controller
- Identify the ICM Configuration Change Sequence

Diagnostic Framework Suite

- Provide an overview of Diagnostic Framework Suite
- Describe how to use the Analysis Manager plug-in component of the RTMT
- Describe the use of Unified System CLI
- Explain the functions of the Diagnostic Framework Portico

UCCE Support

- Identify the available ICM command line tools
- Describe the use of CVP statistics and how Unified CVP events can be configured to provide support

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information

- Describe troubleshooting functions for both ingress and egress of the IOS Gateway
- Explain how RTMT provides support for the UCM

Service Assurance

- Identify how Syslog and SNMP are used to provide performance monitoring