

## Administering Advanced Cisco Contact Center Enterprise (CCEAA)

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In this Administering Advanced Cisco Contact Center Enterprise advanced three-day Packaged Cisco Contact Center Enterprise (PCCE) course it provides in-depth, hands-on training for engineers and administrators responsible for designing, extending, and optimizing enterprise-scale contact center deployments. The course begins with a comprehensive review of PCCE architecture, protocols, call flow, and administrative tools, ensuring participants have a solid understanding of how core components such as ICM, CVP, CUCM, Finesse, and peripheral gateways interact within a layered deployment model.

Building on this foundation, learners progress into advanced configuration and customization topics, including bulk import tools for large-scale deployments, complex routing and scripting designs, and enhanced data exchange using ECC variables. Participants gain practical experience developing VoiceXML applications in Call Studio, integrating database lookups, collecting caller input, and invoking custom IVR logic directly from CCE routing scripts. The course also explores CUCM-initiated call flows, advanced transfer scenarios, and the role of CUCM as a routing client for agent-initiated interactions.

The curriculum further expands into advanced feature enablement, including Finesse desktop customization with gadgets, Mobile Agent deployments for remote and hybrid workforces, and Post Call Survey implementations for customer feedback and performance measurement. Extensive lab exercises reinforce each topic, allowing students to design, deploy, test, and validate advanced PCCE capabilities in realistic scenarios. By the end of the course, participants are equipped to enhance PCCE environments with advanced automation, customization, and customer experience features while maintaining scalability, resiliency, and operational control.

#### How you'll benefit

This class will help you:

- Learn how to optimize management of CCE solutions for proactive management of contact centers tasks
- Manage the effects of using CCE solutions for scalability and interaction between the solution components for centralized application management

#### Why Attend with Current Technologies CLC

- Our Instructors are in 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

#### Who Should Attend

The primary audience for this course is as follows:

- Deployment Engineers
- Sales Engineers

#### Course Duration

3 days

#### Course Price

\$2,795.00 or 28 CLCs

#### Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

## Prerequisites

To fully benefit from this course, you should have the following knowledge:

- Basic knowledge of networking (Windows Active Directory, SQL) and components (servers, routers, switch) is helpful but not required
- Working knowledge of Unified Communications Manager and voice gateways
- Basic understanding of Cisco Unified Contact Center Enterprise architecture and operation

## OUTLINE

### Module 1: PCCE Review

- PCCE Architecture and Components Review
  - Recap of the main CCE components: ICM Router, Logger, PGs, CVP, CUCM, and Finesse
  - Understanding the layered deployment structure and key integration points
- PCCE Protocols Review
  - Overview of protocols used in PCCE (JTAPI, SIP, GED-125, GED-188)
  - Role of each protocol in communication between system elements
- PCCE Call Flow Review
  - Step-by-step trace of call setup, routing decisions, queuing, and delivery
  - Application of script logic to call flow paths
- PCCE Access Tools Review
  - Introduction to Web Administration, Script Editor, Configuration Manager, and SPOG
  - Access roles and permissions for advanced administration

### Module 2: Introducing Bulk Import Tools

- Use the PCCE Bulk Import Tool
  - Overview of the bulk import utility for automating repetitive configuration tasks
  - Supported object types such as call types, skill groups, agents, and labels
- Use Bulk Import Templates
  - Format and structure of CSV templates used in the import process
  - Validation and error resolution when importing configuration data

### Module 3: Configuring Advanced Scripting and CCE Data Exchange

- Design for Advanced Scripting
  - Routing design using complex decision logic, database queries, and custom flows
  - Considerations for maintainability, error handling, and reusability
- CCE Data Exchange
  - Concepts around ECC variables and how data is passed between components
  - Using context data in scripts to customize call treatment
- Using Call Studio
  - Developing IVR applications in Call Studio with menu navigation and prompt playback
  - Configuration of application nodes, error handling, and event processing
- Implement Database Lookup using VXML
  - Integrating with backend data systems for dynamic responses
  - Using VoiceXML nodes to retrieve caller-specific information
- Collect Response from the Caller
  - Capturing digits or spoken input for use in routing scripts or IVR menus
- Invoking Call Studio Applications with CCE Routing Scripts
  - Launching custom VXML applications through CCE script integration
  - Validating application responses and updating routing logic accordingly

#### **Module 4: Cisco Unified Communications Manager Initiated Call Flows**

- Understand Transfer Types and Cisco Unified CVP Call Flow Models
  - Types of call transfers: blind, consultative, and supervised
  - Use of CVP in mid-call media control and transfer orchestration
- Describe Subsequent Transfers
  - Managing multiple transfers within the same call session
  - Preserving call context and agent association
- Perform UCM Configurations for Transfers
  - Dial peer, route pattern, and SIP trunk configuration in CUCM
  - Enabling successful agent-to-agent or IVR transfer behavior
- Configure CUCM as Routing Client and Agent Transfers
  - Register CUCM with CCE as a routing client to initiate route requests
  - Support for internal helpdesk calls and agent-sourced contact initiation

#### **Module 5: Using Gadgets to Customize the Finesse Desktop**

- Obtain Finesse Custom Gadgets
  - Sources for downloading or developing custom gadgets
  - Cisco DevNet and partner-developed gadget examples
- Deploy Finesse Custom Gadgets
  - Uploading and registering gadgets through the Finesse admin interface
  - Assigning gadgets to specific agent roles or teams
  - Testing integration with backend systems or APIs

#### **Module 6: Implementing Mobile Agent**

- Examine Mobile Agent Functionality
  - Use cases for remote and hybrid agent environments
  - Support for PSTN or mobile endpoints with call control maintained in CCE
- Identify Mobile Agent Architecture and Components
  - Logical call flow and interaction between PG, CUCM, and mobile endpoint
  - Key services and prerequisites for activation
- Configuring Mobile Agent
  - Required settings for login, device association, and call options
  - Agent desktop configuration to support mobile mode
- Logging in as Mobile Agent
  - Login process from Finesse desktop and handling of call setup prompts
  - Common issues and troubleshooting steps

#### **Module 7: Implementing Post Call Survey**

- Examine Post Call Survey Functionality
  - Architecture of post-call customer feedback capture using CVP and VXML
  - Survey call flow design and integration with previous interaction
- Configure Post Call Survey
  - Setup of entry points, routing scripts, and IVR prompts
  - Handling survey opt-in and transfer logic
- Reporting Considerations for Post Call Survey
  - Integration of survey results with CUIC or third-party tools
  - Structuring data to align with call records and agent performance

## LAB OUTLINE

- Discovery 1-1: Review Discovery
- Discovery 1-2: Navigating CCE Discovery Architecture and Components
- Discovery 2-1: Importing Bulk Data
- Discovery 3-1: Creating VXML Application using Call Studio
- Discovery 3-2: Configure Precision Queues
- Discovery 3-3: Creating CCE Routing Script
- Discovery 3-4: Customizing Finesse Desktop
- Discovery 3-5: Testing your Call Flow
- Discovery 4-1: Configure CUCM as Routing Client and Agent Transfers
- Discovery 5-1: Deploying Finesse Gadgets
- Discovery 6-1: Implementing Mobile Agent
- Discovery 7-1: Implementing Post Call Survey