



Designing Cisco Unified Contact Center Enterprise (600-455)

Exam Description: The Designing Cisco Unified Contact Center Enterprise (UCCED) exam (600-455) is a 75 minute 65-75 question assessment that tests a candidate's knowledge of design considerations and guidelines for deploying Cisco Unified Contact Center Enterprise (Cisco Unified CCE) solutions. Cisco Unified CCE is part of Cisco Unified Communications application suite, which delivers intelligent call routing, network-to-desktop computer telephony integration (CTI), and multichannel contact management to contact center agents over an IP network.

The following topics are general guidelines for the content likely to be included on the exam. However, other related topics may also appear on any specific delivery of the exam. In order to better reflect the contents of the exam and for clarity purposes, the guidelines below may change at any time without notice.

- 23%** **1.0** **Describe the Features and Functionality of the Cisco Unified CCE Solution**
 - 1.1 Describe the role of Cisco Unified Communications Manager in Cisco Unified CCE
 - 1.2 Describe the role of voice gateways and Session Initiation Protocol proxy in Cisco Unified CCE
 - 1.3 Describe the role of congestion control in Cisco Unified CCE
 - 1.4 Describe the role of Cisco Unified Intelligent Contact Management (Unified ICM) in Cisco Unified CCE
 - 1.5 Describe the role of CTI in Cisco Unified CCE
 - 1.6 Describe the role of Cisco Unified Customer Voice Portal in Cisco Unified CCE
 - 1.7 Describe the role of high priority traffic in Cisco Unified ICM
 - 1.8 Describe the methods available to configure and use precision routing
 - 1.9 Describe the role of Cisco Unified Mobile Agent in Cisco Unified CCE
 - 1.10 Describe the role of Cisco Outbound Option in Cisco Unified CCE
 - 1.11 Describe the methods available to secure the Cisco Unified CCE solution and their impact on system capacity and functionality

- 11%** **2.0** **Identify the Design Considerations for Cisco Unified Communications Manager in a Cisco Unified CCE Solution**
 - 2.1 Describe the Cisco Unified Communications Manager originated calls to Cisco Unified Customer Voice Portal
 - 2.2 Describe the Cisco Unified Communications Manager options for transfer calls to agents involving SIP trunks
 - 2.3 Describe the requirements for Cisco Unified Mobile Agent on Cisco Unified Communications Manager
 - 2.4 Describe the impact of the multiline automatic call distributor functionality of Cisco Unified CCE on Cisco Unified Communications Manager
 - 2.5 Describe the cluster over the WAN consideration for Cisco Unified Communications Manager

- 2.6 Describe the Cisco Unified Communications Manager redundancy options for centralized deployment
- 2.7 Describe the methods available to maintain end to end reporting for transferred calls
- 19%** **3.0 Identify the Network Design Considerations in a Cisco Unified CCE Solution**
 - 3.1 Explain the failure scenarios with geographically separated Cisco Unified CCE deployments
 - 3.2 Describe the quality of service usage within Unified Contact Center Enterprise solution
 - 3.3 Explain the network requirements to support the Clustering over the WAN (CoW) deployment model for the Cisco Unified CCE solution
 - 3.4 Describe the basic deployment models for the Cisco Unified CCE solution (single-site, multisite centralized, and multisite distributed)
 - 3.5 Explain network requirements for the Cisco Unified Intelligent Contact Management visible and private network connections in a Cisco Unified CCE solution
 - 3.6 Describe Cisco Finesse failover scenarios
 - 3.7 Describe the factors that impact Cisco Unified Intelligence Center bandwidth usage
 - 3.8 Describe the Test Other Side method used in Unified Intelligent Contact Management
 - 3.9 Describe the high-availability options of all components supported in the Cisco Unified CCE solution
- 23%** **4.0 Identify the Design Considerations for Cisco Unified ICM, Cisco Finesse, Cisco Unified CVP, and Cisco Unified Intelligence Center in a Cisco Unified CCE Solution**
 - 4.1 Explain call type usage within Cisco Unified ICM in Cisco Unified CCE solution
 - 4.2 Describe the design consideration for administrative workstations when Unified CCE is deployed into two data centers (geographically separated)
 - 4.3 Describe the impact for re-qualify call node in Cisco Unified ICM script
 - 4.4 Describe the Cisco Unified Border Element and SIP proxy functionality within Cisco Unified CCE solution
 - 4.5 Describe Post Call Survey functionality and its call flow
 - 4.6 Describe Whisper Announcement functionality and its call flow
 - 4.7 Describe Courtesy Call back functionality and its call flow
 - 4.8 Describe Cisco Finesse features and its third-party gadgets
 - 4.9 Describe the Cisco Finesse workflow
 - 4.10 Describe the agent target rules feature of Cisco Unified ICM and the impact it has on the Cisco Unified CCE solution
- 13%** **5.0 Describe the Sizing Process for Contact Center Resources and Cisco Unified CCE Components**
 - 5.1 Describe common sizing inputs such as agent talk time, queue time, and wrap-up time and their impact on sizing contact center resources
 - 5.2 Explain how Erlang calculations are used as part of the sizing for contact center resources
 - 5.3 Describe the Packaged CCE capacity
 - 5.4 Describe the sizing consideration for SIP proxy methods
 - 5.5 Describe the factors that are used to size the components of the Cisco Unified CCE solution — including Cisco Unified Communications Manager, Cisco Unified CVP, and Cisco Unified ICM components, such as peripheral gateway, router, logger, and administrative workstations

- 5.6 Describe the factors that are used in sizing the bandwidth required for the Cisco Unified CCE solution

- 11% 6.0 Describe the Virtualization Environment for Contact Center Resources and Cisco Unified CCE Components**
 - 6.1 Identify the VMware supported features
 - 6.2 Describe the configuration considerations for NIC in virtualization environment
 - 6.3 Describe the Cisco Unified Computing System B_Series fabric interconnection and the upstream network connectivity
 - 6.4 Describe the design considerations for Cisco Unified CCE running on the Cisco Unified Computing System B_Series
 - 6.5 Describe the design considerations for upstream IP switches when using the Cisco Unified Computing System C_Series