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## Implementing and Supporting Cisco Unified Contact Center Enterprise (500-450)

**Exam Description:** The Implementing and Supporting Cisco Unified Contact Center Enterprise (UCCEIS) exam (500-450) is a 75 minute, 65-75 question assessment that tests a candidate's knowledge of installing and deploying Cisco Unified Contact Center Enterprise (Cisco Unified CCE) solutions. Cisco Unified CCE is part of the 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. Skills assessed include install, setup, configure, and troubleshoot the solution.

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.

<b>14%</b>	<b>1.0</b>	<b>Describe the Fault Tolerant Characteristics of the Cisco Unified Contact Center Enterprise Solution including Cisco Unified Customer Voice Portal, Cisco Unified Intelligence Center, and Cisco Finesse</b>
	1.1	Explain the fault-tolerant integration of Cisco Unified Customer Voice Portal in the Cisco Unified CCE solution
	1.2	Explain what Cisco Unified ICM router key is
	1.3	Describe the steps required for Cisco Finesse configuration updates
	1.4	Describe the internal communications between Cisco Unified ICM components
	1.5	Describe the requirements for Cisco Unified ICM heartbeats
	1.6	Describe the synchronization between Cisco Unified ICM components
	1.7	Describe the considerations for upgrading one or more components of the Cisco Unified CCE solution
	1.8	Describe the impact of a network failure in the Cisco Unified CCE solution
	1.9	Explain how the Cisco (Unified ICM) call routing script can detect and route around failed system components of the Cisco Unified CCE solution
<b>21%</b>	<b>2.0</b>	<b>Describe the Installation Process for ICM Components of the Cisco Unified Contact Center Enterprise Solution including Cisco Unified CVP, Cisco Unified IC, and Cisco Finesse</b>
	2.1	Describe the configuration elements for Cisco Unified CVP that is required in Unified ICM
	2.2	Describe the install and setup for SIP dialer and voice gateways
	2.3	Describe the Cisco Unified Intelligence Center requirements using virtualization environment
	2.4	Explain the configuration roles for agent teams
	2.5	Describe the install and configuration requirements for Cisco Finesse
	2.6	Describe the configuration limits for Packaged CCE
	2.7	Describe the configuration requirements for voice gateway used in Packaged CCE deployment

- 2.8 Explain the required configuration to use significant digits
- 2.9 Explain the required software to install and setup VMware Hypervisor
- 2.10 Describe the configuration options required to enable the Outbound option in the Cisco Unified ICM
- 2.11 Describe the role of the Cisco Unified ICM Domain Manager tool
- 2.12 Describe the Unified ICM routing clients

**18% 3.0 Describe the Call Flow Scripting Process in Cisco Unified ICM and Cisco Unified CVP for the Cisco Unified Contact Center Enterprise Solution**

- 3.1 Describe the precision queue scripting consideration
- 3.2 Describe the Extended Call Context variables with Cisco Unified CVP
- 3.3 Describe the functionality limitation imposed when you use Cisco Unified CVP MicroApp
- 3.4 Describe the elements needed to trigger Cisco Unified ICM script
- 3.5 Describe configuration elements to make VXML gateway part of Cisco Unified CVP deployment
- 3.6 Describe configuration elements needed for post call survey
- 3.7 Describe outbound scripting considerations
- 3.8 Describe the impact that Cisco Unified ICM scripting has on reporting in the Cisco Unified CCE solution
- 3.9 Describe configuration elements needed for sig digits
- 3.10 Explain the options available in Cisco Unified ICM call routing scripts to access external databases for call routing
- 3.11 Describe how MicroApp can capture DTMF

**16% 4.0 Understanding Cisco Unified CCE Tools Including Cisco Unified ICM, Cisco Unified CVP, Cisco Unified IC, and Cisco Finesse Tools**

- 4.1 Describe the available tools in the Cisco Unified CCE solution to support Cisco Unified Intelligent Contact Management
- 4.2 Describe the available tools in the Cisco Unified CCE solution to support the Cisco Unified Communications Manager
- 4.3 Describe the available tools in the Cisco Unified CCE solution to support the Cisco Unified CVP Customer Response Solutions
- 4.4 Describe the available tools in the Cisco Unified CCE solution to support Cisco Finesse
- 4.5 Describe the available tools in the Cisco Unified CCE solution to support the Cisco Unified Intelligence Center

**11% 5.0 Identify Cisco Unified ICM, Cisco Unified CVP, and Cisco Finesse**

- 5.1 Identify issues in Cisco Unified CVP log and trace files
- 5.2 Identify issues in Cisco Unified ICM and CTI log and trace files
- 5.3 Identify issues in Cisco Unified Enterprise outbound option log and trace files
- 5.4 Identify issues in Cisco Finesse log and trace files
- 5.5 Identify issues in Cisco Unified Contact Center Enterprise security

**7% 6.0 Understanding Cisco Unified CCE Agent Supervision Issues and Considerations**

- 6.1 Identify Ring No Answer issues and considerations
- 6.2 Identify Cisco Finesse considerations to avoid agent issues
- 6.3 Understanding Cisco Finesse Administration to avoid agent issues
- 6.4 Identify issues with agents not being able to log into Cisco Unified CCE

- 6.5 Identify issues with agent call behavior
- 13% 7.0 Understanding Cisco Unified CCE Solution Call Flow Issues and Considerations**
  - 7.1 Identify call flow issues and considerations for the Cisco Unified ICM call routing scripts for inbound and outbound calls
  - 7.2 Identify call flow issues for agent transfers in the Cisco Unified CCE solution
  - 7.3 Identify call flow issues and considerations for the Cisco Unified CVP scripts
  - 7.4 Identify Cisco Unified CVP configuration elements and their purpose
  - 7.5 Identify call flow issues and considerations for the VXML gateways
  - 7.6 Identify voice quality issues