

## **IMPLEMENTING CISCO UNIFIED COMMUNICATIONS MANAGER PART 1**

Manage Tcl and VXML call applications on a gateway  
Describe how to obtain call applications  
Configure a gateway to use call applications  
Verify call application implementations

Describe and implement centralized call processing redundancy  
Describe device fail over  
Configure call survivability  
Configure SRST operation  
Configure CME to provide redundancy  
Configure MGCP Fallback operation  
Verify redundancy operations

Describe and configure a multi-site dial plan for Cisco Unified Communications Manager  
Describe the issues with multi-site dial plans  
Describe the differences between the various gateways and trunk types supported by Cisco Unified Communication Manager  
Configure Cisco Unified Communications Manager to utilize an H.323 gateway  
Configure a SIP trunk  
Implement a numbering plan for multi-site topologies  
Configure intercluster trunks  
Configure tailend hop off  
Configure Cisco Unified Communication Manager to register with a gatekeeper

Implement bandwidth management and Call Admission Control  
Configure Regions  
Configure transcoders and MTPs  
Configure Locations  
Implement RSVP agent  
Implement gatekeeper-based Call Admission Control  
Configure AAR  
Configure multi-site MoH

Secure an IP Telephony network  
Describe the threats to an IP Telephony network  
Describe the features used to mitigate threats to an IP Telephony network  
Describe how authentication and cryptographic services can secure an IP Telephony network  
Configure secure signaling between devices  
Configure devices to support sRTP

Implement mobility in an IP Telephony network  
Configure device mobility  
Configure Cisco Extension Mobility  
Configure Cisco Unified Mobility

## **IMPLEMENTING CISCO UNIFIED COMMUNICATIONS MANAGER PART 2**

Perform an installation and initial set up of a Cisco Unified Communications Manager cluster

Describe administrative access to Cisco Unified Communications Manager

Describe Cisco Unified Communications Manager cluster architecture

Describe Cisco Unified Communications Manager redundancy designs

Describe the requirements for Cisco Unified Communications Manager use of DHCP, TFTP, DNS, and NTP

Determine the services necessary to support a Cisco Unified Communications Manager deployment and activate the appropriate services

Perform an install and upgrade on Cisco Unified Communications Manager

Describe and configure Cisco Unified Communications Manager to support on-cluster calling

Configure a Cisco Unified Communications Manager group

Configure users, user groups, and roles

Configure Cisco Unified Communications Manager to support Cisco SCCP & SIP Phones

Configure Cisco Unified Communications Manager to support 3rd party SIP phones

Describe how to harden an IP phone

Configure LDAP integration

Configure Cisco Unified Communications Manager profiles and device pools

Configure Cisco Unified Communications Manager templates

Configure a Cisco switch to support IP phones

Use Cisco Unified Communications Manager BAT to manage phones and users

Describe the function of TAPS

Describe and configure a route plan for Cisco Unified Communications Manager to support off-net calling

Describe Cisco Unified Communications Manager digit analysis

Implement an MGCP Gateway

Configure route patterns and route filters

Configure route lists and route groups

Implement toll-fraud prevention

Configure digit manipulation

Describe the functions and usage of CSS and partitions

Implement calling privileges

Implement call coverage

Describe and configure Cisco Unified Communications Manager media resources

Describe media resources

Configure MeetMe conferencing, hardware conferencing resources, and software conferencing resources

Configure MoH

Configure MRGs and MRGLs

Configure the Cisco Unified Communications Manager to support features and applications  
Configure IP phone services  
Enable user web page access  
Integrate Cisco Unified Communications Manager with Unity and UnityConnection  
Configure Call Park, Privacy, Barge, Call Pickup, and Intercom  
Implement Presence