CIPTV2 - Implementing Cisco IP Telephony and Video Part 2 v1.0

Code:	CIPTV2-GK
Length:	5 days
URL:	View Online

This course includes Cisco Training Exclusives

Accelerate your Cisco learning experience with complimentary access to the IT Skills Video On-Demand Library, *Introduction to Cybersecurity* digital learning course, course recordings, IT Resource Library, and digital courseware.

This hands-on course prepares you for implementing a Cisco collaboration solution in a multisite environment.

Focusing on Cisco Unified Communications Manager v10.x, Cisco VCS-C, and Cisco Expressway series, you will implement voice and video in a multisite network. You will learn the concepts and configuration elements of globalized call routing, URI dialing and call routing, Global Dial Plan Replication (GDPR) based on Cisco Inter-cluster Lookup Service (ILS), Cisco Unified Survivable Remote Site Telephony (SRST), mobility features, and Call Admission Control (CAC).

In consideration of mobile users connected to the public Internet, as well as Cisco TelePresence devices, you will also learn the concepts and configuration elements of Cisco VCS and its integration with Cisco Unified Communications Manager and Cisco Mobile Remote Access (MRA) on Cisco Expressway Series.

This course includes 30 Cisco e-Lab credits. Your e-Lab credits are good for 90 days after your course ends and can be used for additional practice on the course you just completed or to explore technologies from other courses in the e-Lab portfolio.Learn more.

Why Take CIPTV2 from ?

Our lab environment has been customized to ensure that you gain the skills you need for multisite deployment and globalization in North America. Other training partners provide a simplistic topology with a generic HQ site and minimal implementation of the North American Numbering Plan (NANP). Our enhanced labs include:

- A focus on the NANP
- HQ in North America with multiple branches in North America with overlapping extensions
- Branch offices featuring international dialing
- Globalization of dial plans
- Global dial plan replication
- Intercluster Lookup Service (ILS)
- Implementing a real-life variable-length on-net dial plan including:
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    - Emergency dialing such as 911

    - Services dialing such as 411, 511, and 611
    - Local 7-digit and 10-digit dialing
    - NANP long distance dialing
    - Variable-length international dialing

- URI dialing of endpoints
- Cisco Expressway call routing
- Cisco TelePresence management suite
- Each student pod contains the following, independent of other pods:

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    - Two Cisco 9951 SIP phones
    - Branch and PSTN phones
    - IP Communicator phones
    - Communications Manager Cluster
    - Unity Connection server
    - TelePresence server
    - TelePresence Conductor
    - Domain controller
    - MediaSense server
    - Cisco Expressway server(s)
    - 2911 and 2811 gateways and CUBEs
    - Fully simulated PSTN

Our next-generation Cisco Collaboration platform combines the Cisco Unified Computing System (UCS) with a VMware DRS cluster, distributing the load for individual classrooms across 16 UCS B-Series blades provisioned with 1.6 TB of RAM. Taking advantage of the improved performance of the UCS environment, we can deploy additional capabilities while improving classroom performance. Our Collaboration Lab environment provides valuable labs that generate high interest by Cisco Collaboration users:

- Learn the basics of managing your virtual apps with our optional VMware exploration lab
- Deploy a CUCM VM from an OVA template and install the app in a virtual environment
- 10 extra e-Lab credits, good for 30 days, so you can practice and refine your skills

Skills Gained

- Issues in multisite deployments and their solutions
- Implement a variable-length on-net dial plan without globalization supporting multiple sites with overlapping extensions
- Use v7, 8, and 9.1 features, including local route groups and global transformations
- Transition to a globalized E.164 dial plan
- Issues with globalization in the NANP
- Implement a URI-based dial plan for multisite deployments

- Implement call-processing resiliency in remote sites using SRST, MGCP fallback, and CUCM Express
- Implement CAC to manage calling and prevent oversubscription of the IP WAN
- Implement enhanced locations call admission control
- Implement mobility features such as CUCM device mobility and CUCM extension mobility
- Explore the use of gatekeepers
- Configure and implement solutions to reduce bandwidth requirements in the IP WAN
- Implement Cisco VCS
- Implement Cisco Expressway series
- Implement users and endpoints in Cisco VCS Control
- Interconnecting and integrating Cisco Unified Communications Manager and Cisco VCS
- Implement a dial plan on Cisco VCS
- Implement Unified Communications and Mobile Remote Access (MRA)
- Implementing ILS
- Implement Global Dial Plan Replication (GDPR)
- Implementing Call Control Discovery and SAF

Who Can Benefit

Network professionals who install, configure, and manage Cisco Collaboration solutions in multisite enterprises

Prerequisites

- Active CCNP Voice or CCNP Collaboration
- One to three years of active Call Manager/Unified Communications Manager experience
- Experience with SIP, H.323, and MGCP protocols
- Basic understanding of video concepts inside unified communications

Course Details

Lab 1: Remote Labs Access

Lab 2: Disaster Recovery

Lab 3: Cisco Unified Border Element

Lab 4: SIP Trunk Configuration

Lab 5: MGCP Gateway Configuration

Lab 6: Inter-Cluster Trunk Configuration

Lab 7: Route Groups

Lab 8: Route Lists

Lab 9: IP Communicator Phone Registration

Lab 10: 9951 IP Phone Registration

Lab 11: UnifiedFX Configuration

Lab 12: Traditional Route Patterns

Lab 13: Traditional Dial Plan Testing

Lab 14: User Management

Lab 15: Global Dial Plan and +E.164 Dialing

Lab 16: Multi-cluster Call Routing using Inter-cluster Trunking

Lab 17: URI Dialing

Lab 18: Survivable Remote Site Telephony

Lab 19: Bandwidth Management Techniques

Lab 20: Locations and Enhanced Locations CAC

Lab 21: Device Mobility

Lab 22: Extension Mobility

Lab 23: Unified Mobility

Lab 24: VCS Provisioning and Administration

Lab 25: VCS Dial Plan and CUCM integration

Lab 26: Mobile Remote Access using Cisco Expressway Core and Edge (includes Cisco Jabber)

Lab 27: Global Dial Plan Replication

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Lab 22: Extension Mobility

Lab 23: Unified Mobility

Lab 24: VCS Provisioning and Administration

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