



DATA SHEET

CISCO IP TELEPHONY PART 1

In Cisco® IP Telephony Part 1, a new Cisco Systems® course, you will learn full use of Cisco CallManager 4.0 and Cisco IP phones. By learning to build, manage, and troubleshoot campus and multisite WAN IP telephony solutions, you can deploy the right network infrastructure to optimize the performance of your network.

You will learn the installation, configuration, operations, and troubleshooting of Cisco IP phones and gateways and explore how to configure Cisco CallManager on a Windows 2000 platform. You will also discover how to implement IP telephony technology using the latest version of Cisco CallManager 4.0 and develop the needed skills to implement an IP-based telephone system in a small office or in a large-scale enterprise environment.

Cisco IP Telephony Part 1 is part of the Cisco AVVID (Architecture for Voice, Video and Integrated Data) curriculum and will prepare you for the IP Telephony Support Specialist certification.

DURATION

Five Days

OBJECTIVES

Upon completion of this course, students will be able to perform the following tasks:

- Describe and identify all components of a Cisco IP Telephony network
- Configure the IP network
- Install and upgrade a Cisco CallManager system
- Build an IP telephony campus solution
- Build a multisite WAN IP telephony solution with a distributed and a centralized call processing network
- Use Windows 2000 and Cisco CallManager monitoring applications to monitor and troubleshoot an IP telephony network for efficiency, usage, and network caveats
- Configure digital and analog Media Gateway Control Protocol (MGCP) and H.323 protocol gateways
- Configure intercluster trunks
- Configure a voice-over-IP gatekeeper
- Configure a dial plan with failover capabilities
- Configure calling search spaces and partitions
- Configure hardware-based conferencing
- Configure custom ring types
- Configure Cisco IP Communicator
- Configure music on hold
- Configure Survivable Remote Site Telephony (SRST)
- Configure and install the Bulk Administration Tool (BAT) and backup and restore systems (BaRS)

TARGET AUDIENCE

This course is intended for network professionals who are installing, configuring, and managing Cisco IP Telephony solutions. Additionally, Cisco support personnel, channel partners, and customers could benefit greatly from this course.

PREREQUISITES

CCNA® equivalent experience as taught in the Interconnecting Cisco Network Devices (ICND) course. Skills include the following:

- From the command-line interface (CLI), configure a Cisco IOS® Software router and switch, to include navigating, interfaces, VLANs, routing, and so forth
- Configure and enable static and dynamic routing, including Routing Information Protocol (RIP) and Enhanced Interior Gateway Routing Protocol (EIGRP) on a Cisco IOS Software router
- Troubleshoot a Cisco IOS Software device using the appropriate show and debug commands
- Configure standard and extended access lists to manage traffic access

COURSE OUTLINE

- Cisco IP Telephony Introduction
- Introduction to Cisco AVVID and Cisco CallManager
- Clustering Cisco CallManager
- Installing Cisco CallManager
- Cisco IP Phones
- Configuring Cisco CallManager to Support IP Phones
- Cisco Catalyst® Switches
- Access Gateways
- Route Plans
- Advanced Route Plans
- Telephony Class of Service
- Media Resources
- Call Admission Control and Survivable Remote Site Telephony
- Features
- Users
- Bulk Administration Tool

LAB OUTLINE

- Lab 1: Physical Network
- Lab 2: Configuring the IP Network
- Lab 3: Configuring Dynamic Host Configuration Protocol (DHCP)
- Lab 4: Installing Cisco CallManager Lab (Optional)
- Lab 5: Cisco CallManager Service Pack (Optional)
- Lab 6: Cisco CallManager Backup Utility
- Lab 7: Configuring Cisco CallManager
- Lab 8: Cisco IP Phone Functions and IP Communicator
- Lab 9: Adding User Information
- Lab 10: Bulk Administration Tool
- Lab 11: Intercluster Trunks

- Lab 12: Codecs and Device Pools
- Lab 13: Configuring H.323 Gateways for Foreign Exchange Station (FXS)
- Lab 14: Configuring H.323 Gateways for Foreign Exchange Office (FXO)
- Lab 15: GCP Gateway for FXS
- Lab 16: MGCP Gateway for FXO
- Lab 17: Primary Rate Interface (PRI)
- Lab 18: Intercluster Trunk to PRI Failover
- Lab 19: Partitions and Calling Search Spaces (CSSs)
- Lab 20: Gatekeeper Lab
- Lab 21: SRST
- Lab 22: Conferencing
- Lab 23: Music on Hold
- Lab 24: IP Phone Features
- Lab 25: Hunt Groups Under Attendant Console
- Lab 26: CTI Devices: Softphone (Optional)

REGISTRATION INFORMATION

For more information about schedules and registration for this course, please contact aeskt_registration@cisco.com.

For more information on Advanced Services Education course offerings, as well as Curriculum Planning Services and custom training options, refer to the AS Education Website at www.cisco.com/go/ndm.



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