

## Cisco Voice over IP V6.0

Cursusduur: 5 Dagen    Cursuscode: CVOICEV6

### Beschrijving:

Cisco Voice over IP (CVOICE) v6.0 provides an understanding of converged voice and data networks and also the challenges faced by the various network technologies. The course also provides network administrators and network engineers with the knowledge and skills required to integrate gateways and gatekeepers into an enterprise VoIP network. This course is one of several courses in the Cisco CCVP track that addresses design, planning, and deployment practices and provides comprehensive hands-on experience in configuration and deployment of VoIP networks.

### Doelgroep:

Students completing the CCVP certification track Network engineers, architects, and support staff who: Maintain and configure voice and data network devices Are considering various methodologies to implement Voice over IP (VoIP) Require a fundamental understanding of the issues and solutions related to implementation Require a fundamental understanding of packet telephony technologies

### Doelstelling:

- VoIP, components of a VoIP network, VoIP protocols, special requirements for VoIP calls, and Codecs
- Configure gateway interconnections to support VoIP and PSTN calls
- Basic signaling protocols used on voice gateways; configure a gateway to support calls using the various signaling protocols
- Define a dial plan, describing the purpose of each dial plan component, and implement a dial plan on a voice gateway
- Gatekeeper functions, protocols, and operation; implement an H.323 gatekeeper to provide dial plan resolution and call admission control
- Implement a Cisco Unified Border Element gateway to connect to an Internet Telephony Service Provider

### Vereiste kennis en vaardigheden:

Working knowledge of fundamental terms and concepts of computer networking, including LANs, WANs, and IP switching and routing Basic internetworking skills taught in Interconnecting Cisco Network Devices 2 (ICND2), or equivalent knowledge. Ability to configure and operate Cisco routers and switches and to enable VLANs and DHCP. Knowledge of traditional public switched telephone network (PSTN) operations and technologies.

### Examens en certificering:

CCVP - Cisco Unified Communications Manager (formerly CallManager) 6.0  
CCVP - CallManager 4.x and 5.x  
Cisco Rich Media Communications Specialist

### Vervolg cursussen:

CIPT1 - Cisco IP Telephony

Part 1 and Part 2 v6.0, v5.1 or V4.1

## Cursusinhoud:

### Voice over IP (VoIP)

- Introducing VoIP
- Introducing Voice Gateways
- Specifying Requirements for VoIP Calls
- Understanding Codecs, Codec Complexity, and DSP Functionality

### Configuring Voice Ports

- Analog Voice Ports
- Understanding Gateway Dial Peers
- Digital Voice Ports
- QSIG

### Implementing VoIP Gateways

- Implementing H.323 Gateways
- Implementing MGCP Gateways
- Implementing SIP Gateways

### Implementing Dial Plans on Voice Gateways

- Understanding Dial Plans
- Implementing Numbering plans
- Configuring Digit Manipulation
- Configuring Path Selection
- Implementing Calling Privileges on Cisco IOS Gateways

### Implementing H.323 Gatekeepers

- Introducing Gatekeepers
- Configuring Basic Gatekeeper Functionality
- Implementing Gatekeeper-Based CAC

### Connecting to an ITSP

- Understanding Special Requirements for External VoIP Connections
- Implementing CUBEs

### Labs

Lab 1: Topology and Deployment

Lab 2: Lab Familiarity

Lab 3: Analog Voice Port Configuration

Lab 4: Dial Plan Lab 1 - POTS Dial Peers

Lab 5: Dial Plan Lab 2 - VoIP Dial Peers

Lab 6: Digital Voice Port Configuration

Lab 7: Configuring H.323 Gateways and Codec Parameters

Lab 8: MGCP Gateways

Lab 9: SIP Gateways

Lab 10: Dial Plan Lab 3 - Implementing PSTN Dial Plans

Lab 11: Dial Plan Lab 4 - Configuring Path Selection

Lab 12: Classes of Restriction

Lab 13: Single and Multizone Gatekeepers

Lab 14: Call Admission Control

Lab 15: Configuring Cisco Unified Border Element

Lab 16: (Optional) Configuring AutoQoS

## Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

[info@globalknowledge.nl](mailto:info@globalknowledge.nl)

[www.globalknowledge.nl](http://www.globalknowledge.nl)

Iepenhoeve 5, 3438 MR Nieuwegein