Alcatel-Lucent OmniPCX Enterprise R9.0

VoIP Advanced & Backup

Alcatel·Lucent CSE Corporate & Business

REFERENCE	ENTPTE904US	DELIVERY LANGUAGE	English (course material in English)

DURATION			METHODS
i-learning	6	hours	Virtual self-paced training on the computer.5 hours before and 1 hour after c-learning
c-learning	5	days	Traditional classroom or practical sessions with tutorials (TAP LAB)
v-learning			Tutored virtual training sessions accessible via an internet connection

MAXIMUM NUMBER OF PARTICIPANTS 12

PUBLIC

System Installers

Technicians and Engineers in charge of the configuration and the maintenance of an Alcatel-Lucent OmniPCX Enterprise

OBJECTIVES

At the end of the course, the participant will be able to:

- Configure and maintain a complex Voice over IP Telephony solution on Alcatel-Lucent OmniPCX Enterprise
  - H323 & SIP users
  - H323 & SIP gateways
  - H323 & SIP public trunk groups
  - VoIP Quality Of Service
- Configure and maintain the IP network backup services for multi sites environment
  - Media Gateway Signaling link backup
  - Passive Communication Server
  - IP Touch survivability

PREREQUISITES

- To have attended Alcatel-Lucent OmniPCX Enterprise CPU loading & Architecture training course (Ref.: ENTPTE903US)
- To have attended **VoIP Technologies** training course is strongly advised (Ref.: FG00TE065US)

REQUIRED TECHNICAL CONFIGURATION

For i-learning

Access to the Business Partner Web Site. Internet Explorer version 5.5 or better, Macromedia Flash 7 and Acrobat Reader version 6 or better. Virtual Microsoft Java Machine (MSJVM).

PROGRAM DESCRIPTION

Phase 1: i-learning 5 hours

Describe the network protocols:

- IP
- TCP
- UDP

Describe Voice over IP protocols:

- SIP
- H323
- RTP
- RTCP

Describe the services protocols:

- DHCP
- DNS
- SNMP
- FTP
- TFTP
- Telnet

Describe the IP Services used and ports numbers

Describe how to manage the IP configuration of Voice over IP board

Describe how to check the IP configuration of VoIP boards via maintenance commands

Describe the initialization steps of the VoIP equipment (IP Phones and boards)

Describe the SIP features provided by the Alcatel-Lucent OmniPCX Enterprise Call server

Describe the types of SIP external gateways in the Alcatel-Lucent OmniPCX Enterprise environment

Describe and explain how to configure the Mini SIP Trunk groups

Describe and explain how to configure and maintain H323 gateways in the Alcatel-Lucent OmniPCX Enterprise

Describe and explain how to configure and maintain direct RTP for H323

Describe and explain how to configure and maintain the data & modem transparency

Describe the IP Domains principles

Describe the principles of the QoS for Voice over IP

Describe how to configure and maintain the QoS in the Alcatel-Lucent OmniPCX Enterprise

Describe and explain how to configure and maintain VoIP statistics tickets generation

Phase 2: c-learning 5 days

Configure and maintain the IP parameters of the Voice over IP boards
Describe the Alcatel-Lucent Voice over IP topology
Describe, configure and maintain the internal DHCP server
Describe, configure and maintain the direct RTP
Describe, configure and maintain the IP Domains
Configure and maintain H323 communications
Describe, configure and maintain the internal and external Gatekeepers
Describe, configure and maintain SIP services and SIP users
Describe and configure CAC and Codec Negotiation for SIP users
Configure and maintain public and private SIP trunk groups
Describe, configure and maintain SIP DNS-SRV
Describe, configure and maintain the IP Media Gateway signaling back-up feature
Describe, configure and maintain the local private to public overflow
Describe and configure the IP Touch survivability
Describe, configure and maintain the SIP survivability
Describe, configure and maintain the Passive Communication Server
Describe, configure and maintain the Automatic VLAN Assignment service

Phase 3: i-learning 1 hour

Describe the principles of:

- the DHCP centralization
- Direct RTP in network
- Redirect

Describe how to configure and maintain:

- the DHCP centralization
- Direct RTP in network
- Redirect