

# € TRAINING

Fundamentals of VoIP & IP Telecom  
Networks



1 - 5 September 2024  
Sharm El-Sheikh (Egypt)  
Sheraton Sharm Hotel,  
Resort,



# Fundamentals of VoIP & IP Telecom Networks

REF: B2277 DATE: 1 - 5 September 2024 Venue: Sharm El-Sheikh (Egypt) - Sheraton Sharm Hotel, Resort, Fee: 4095 Euro

## Introduction

Specifically designed for non-engineering professionals, this course will fill in the gaps and get you up to speed on all of the fundamental concepts and technologies involved with Voice over IP, SIP, SIP trunking, VoIP phone systems and telecom networks.

Get a solid knowledge base to build on – structured, complete knowledge you can't get on the job, reading articles or talking to vendors.

This is career-enhancing knowledge that lasts a lifetime, and training that will be repaid many times over in increased accuracy and productivity.

## Course Objectives

At the end of this course, the participants will be able to learn:

- Today's broadband converged IP telecommunications network
- What all of the VoIP jargon and buzzwords mean
- How VoIP works end-to-end; all of the components involved
- What SIP is
- How an organization saves money moving to softswitches and SIP trunking
- The OSI Layers
- Ethernet, IP and MPLS
- Who supplies what, and how it all fits together
- Best practices

## Targeted Audience

- Professionals needing to fill in the knowledge gaps, understand VoIP and network buzzwords and jargon, technologies like SIP, services like SIP trunking, and most importantly, understand the underlying ideas, and how it all fits together.
- Non-Engineering professionals who are in need of a solid knowledge base to be more effective in dealing with PBX replacement and VoIP migration projects.
- Managers and planners. Telecom system administrators. Finance, tax and accounting personnel. Software and support system developers.
- Decision-makers and project managers who need to understand what the "techies" are saying.
- Anyone in telecom who needs to upgrade their knowledge to Voice over IP and IP telecom networks.

## Course Outline

### Unit 1: THE BIG PICTURE

- Introduction to Broadband Converged IP Telecommunications
- Fundamentals of Voice over IP
- Network Fundamentals
- The Many Different Implementations of VoIP: Part 1: VoIP for Individuals

- The Many Different Implementations of VoIP: Part 2: VoIP for Organizations

## Unit 2: NUTS AND BOLTS: VOIP AND SIP

- Packetized Voice and Sound Quality
- SIP and Softswitches
- SIP Trunking & Carrier Connections

## Unit 3: THE NETWORK

- Organizing the Discussion: the OSI Layers
- Ethernet on Copper, Fiber and Wireless
- IP Networks, Routers and Addresses
- Carrier Networks and MPLS VPNs vs. SD-WAN