



## Introduction to Telecommunications and Enterprise Networks

(3 days)



### To Register

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## COURSE OBJECTIVES

The telecommunication sector is comprised of many fields of expertise. Effectively deployed, voice, data and wireless networks are now an integral part of any enterprise's productivity and business objectives.

This course provides a technical overview of the different telecommunications and data network components and architectures used in this continuously evolving environment. Also in particular we will discuss and address the effects of network convergence throughout the course.

Upon completion of this course, participants will be able to:

- ✓ Describe the basic components of a telecommunication network.
- ✓ Describe the functionalities of the protocols used in a telecommunication network.
- ✓ Compare different network architectures.
- ✓ Explain the elements and constraints related to services convergence and VoIP.

## INTENDED AUDIENCE

Planners, managers, network administrators, technicians and sales representatives whose responsibilities require an overall understanding of the network technologies and their evolution.

## COURSE DESCRIPTION

- Basic concepts
  - ⇒ OSI model
  - ⇒ Information characteristics
  - ⇒ Network characteristics
- Transmission networks
  - ⇒ The media and their transmission characteristics
    - Copper (TP, STP, UTP) and coaxial
    - Wireless
    - Optical fiber
  - ⇒ Analog and digital transmission
  - ⇒ Modulation and multiplexing
  - ⇒ PDH, Sonet and SDH
- Voice networks
  - ⇒ Signal transmission
  - ⇒ Switching
    - Switches



- Signaling and supervision
- ⇒ Network evolution
  - SS7, RNIS, Q.931
  - Competitive environment
- ⇒ Private networks
  - Key systems and PBX
  - Centrex
- Cellular voice networks
- Data networking
  - ⇒ IP and its stack of protocols
    - DHCP
    - DNS
    - TCP, UDP
    - IP
    - ARP
  - ⇒ Local Area Networks (LAN)
    - Ethernet
    - Token ring, FDDI
  - ⇒ Internetworking
    - Bridges and switches
    - Routing
  - ⇒ Wide Area Networks (WAN)
    - xDSL, PPPoE
    - Frame relay
    - ATM, MPLS
  - ⇒ VoIP

## PRICE

For price information, please contact us at [iptraining@argilon.com](mailto:iptraining@argilon.com)

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