



ENG-413 - IP Network Essentials for Managers

Description

This course is also available as a live distance learning course

A 2-day training course that will introduce participants to data networks and TCP/IP and provide an understanding of the key principles, technologies and protocols that drive the Internet and today's corporate data networks.

Objectives

- Understand the fundamental principles of data networks and how they apply to a corporate network
- Grasp the key concepts and features of TCP/IP, and their use and importance in a data network
- Understand important services delivered over a data network
- Grasp key security issues associated with data networks
- Obtain a high-level view of the optimization and troubleshooting of a corporate network

Topics

*Note: the course structure may be subject to change as trainings are updated on a regular basis.

Introduction

- Network fundamentals
- The evolution to data networks
- How the Internet is built
- Main elements and components of a corporate network

Demystifying IP terminology What is TCP/IP?

- Overview
- The TCP/IP stack and its layers
- Open Systems Interconnection (OSI) reference model
- Protocols
- What does TCP/IP do?

Data link layer of the TCP/IP stack

- Functions and importance
- Network types and topologies
- Ethernet for LANs/WLANs
 - Standard IEEE 802

Network layer of the TCP/IP stack

- Functions and importance
- Routing
- Internet Protocol (IP)
- ARP protocol
- ICMP protocol

Transport layer of the TCP/IP stack

- Functions and importance
- TCP (Transport Control Protocol)
 - Uses: FTP, HTTP
- UDP (User Datagram Protocol)
 - Uses: DNS, DHCP and real-time traffic transport (ex. voice)
- TCP vs. UDP

Security

- Basic principles of network security
- Types of security issues in data networks
- Security mechanisms
- Firewalls and encryption

Data network applications and services

- Web browsing, e-mail, IM, VoIP, video and other services

Basics of optimizing and troubleshooting LANs/WANs

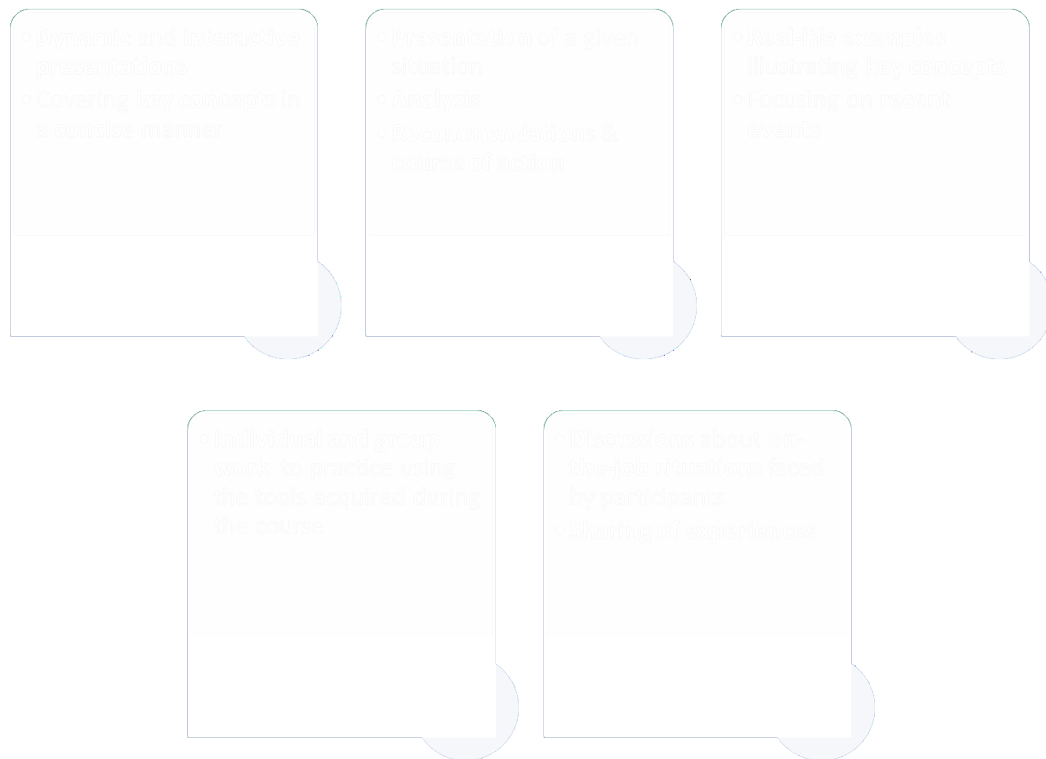
- Tools and guidelines

Target Audience

- Telecom managers who need an understanding of data networks and the Internet Protocol (IP) suite in the context of the convergence of voice and data networks and/or a VoIP implementation in their organization

Methodology

A combination of engaging activities and dynamic presentations to stimulate and maximize participants' learning.



Location

A selection of Neotelis' training courses is held in various cities around the world. Please contact us at training@neotelis.com for the complete Yearly Training Calendar.



Neotelis can also deliver in-house sessions of this course specifically for your organization. Please contact us at training@neotelis.com for more information and a Proposal.

About Neotelis

Neotelis provides training, consulting, conferences and publications to the telecommunications industry worldwide. Its team of senior experts has trained thousands of executives and managers working for operators, regulators, policy-makers and governments in over 120 countries around the world.

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