



## ENG-400 - Introduction to Data Networks & TCP/IP for Non-Technical Staff

### Description

*\*This course is also available as a live distance learning course\**

A 1-day Training Program to provide participants with an overview of data networks and TCP/IP. This Training Program describes the essential components that drive the Internet and today's corporate networks.

### Prerequisite

No prerequisite is required for this Training Program.

### Objectives

- Describe the fundamental principles of data networks
- Explain, in layman's terms, how the Ethernet protocol functions
- Identify the features of the IP and of the transport protocols that work in conjunction with it
- Define, at a high level, the components of a data network and how information travels through it
- Present an overview of data network services and applications, such as web browsing, e-mail, file transfer, Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP)
- Provide a summary description of key related technologies, such as Digital Subscriber Line (DSL), Dense Wavelength Division Multiplexing (DWDM) and MultiProtocol Label Switching (MPLS)

### Topics

#### Introduction

- Evolution to data networks
- Bits and bytes: using 0s and 1s
- Concept of a datagram

- Network types and topologies

## **Data networks**

- Open Systems Interconnection (OSI) model and Transmission Control Protocol (TCP)/IP stack
- Relating the models to systems we understand
- Demystifying all the acronyms
- Encapsulation and decapsulation
- Ethernet: the de facto Local Area Network (LAN) standard
- Collision domains and the evolution to switching
- Features of IP and of the transport protocols that work in conjunction with it
- Main elements and components
- How the internet is built
- A typical corporate network

## **Data network applications and services**

- Web browsing
- E-mail
- File transfer
- Other applications such as Instant Messaging (IM), Voice over IP (VoIP) and Internet Protocol Television (IPTV)
- Internet phone book: DNS
- Address and parameter provider: DHCP

## **Other technologies worth noting**

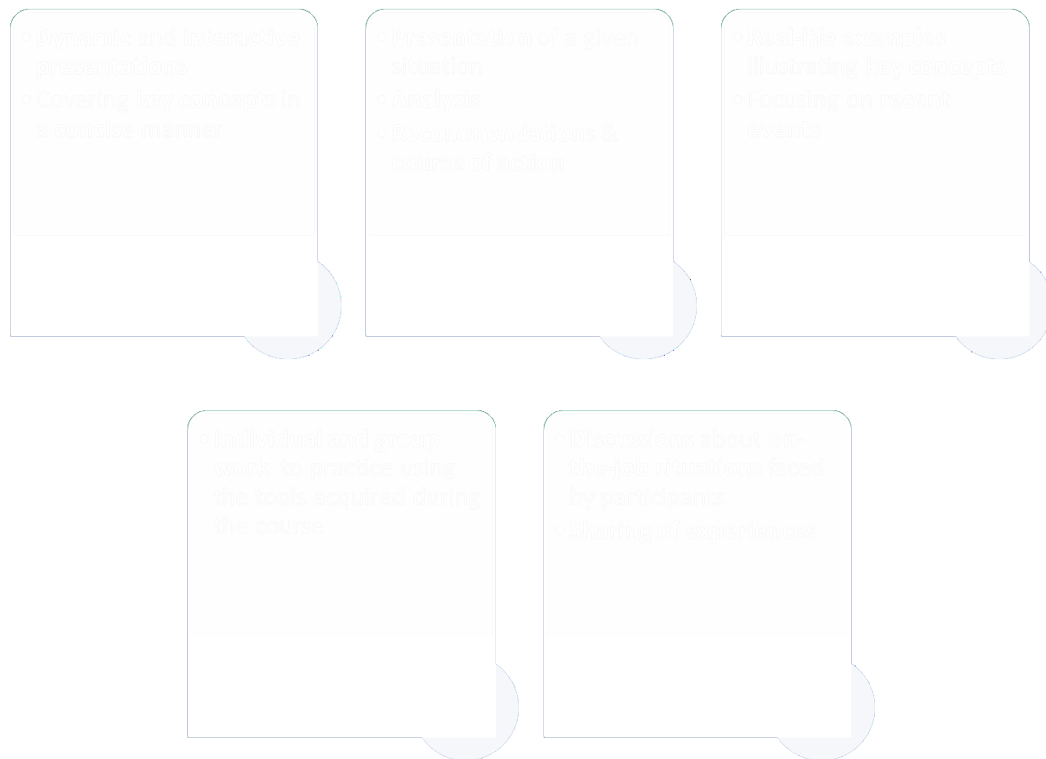
- DSL
- Synchronous Optical NETwork (SONET) and DWDM
- MPLS

## **Target Audience**

- Non-technical personnel in sales, customer care or any other role interested in understanding the fundamentals of data networks and the Internet Protocol (IP) suite
- Managers or executives looking to complement their skill-set by gaining a better understanding of IP data network fundamentals

## **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](mailto: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](mailto: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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