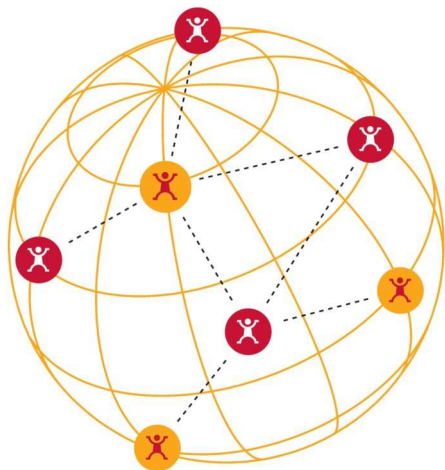


## TRAINING PROGRAM OUTLINE



### ENG-400E INTRODUCTION TO DATA NETWORKS & TCP/IP FOR NON-TECHNICAL STAFF

#### DESCRIPTION

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
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- 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

Our Training Programs combine expert presentations, workshops, case studies and discussions on real-life situations faced by participants. Complete training material is provided to all participants for future reference and follow-up action plans.



## LOCATION

Our Training Programs are held at regular intervals in selected cities around the world. Upon request, our expert trainers can lead Training Programs at the location of your choice. If interested, please contact us at [neotelis.training@neotelis.com](mailto:neotelis.training@neotelis.com).

## EXPERTISE

Neotelis provides consulting and training services to organizations worldwide. Its team of experts has trained thousands of individuals in technical, managerial and executive roles, who are working for operators, regulators, policy-makers, governments and private sector corporations in over 100 countries around the world.

