SETC Training Corporate Logo

IT Networks Training: Concepts, Technology & Infrastructure (NETMOD, 4 jours)

Description

The course Concepts, Technology & Infrastructure (IT Networks Training) provides the core skills that are required to understand modern networks. This includes interconnectivity of local & distributed and wired & wireless networks. The course covers planning, installation, management and troubleshooting & includes training on a variety of network equipment (Cisco, Juniper, & more)

Tarifs

- Tarification: $3,750/person
- Rabais de 10% lorsque vous inscrivez 3 personnes.

Plan de cours

Networking Fundamentals

- Network Architecture Overview
- The OSI Reference Model
- About Protocols
- About TCP/IP
- Wireless Networks Vs Cabled Networks
- Advantages and Disadvantages of Wireless Networks
- Wireless Network Architecture and Protocols

Protocols

- The Nature and Purpose of Protocols
- How Computers Communicate
- Circuit-switched Vs. Packet-switched
- Connections and Connectionless Protocols
- Sources of Protocols: Itu-t, Iso, IEEE and Ietf
- Wireless Protocols
- Wireless Standards: 802.11

Cabling and Connections

- Analog and Digital Circuits
- With Wire: Twisted Pair, Coaxial and Fiber-optic Cabling
- Structured Cabling
- EIA/TIA 568
- Category 3, 5, 5e and 6 Utp
- Wireless: Microwave, Cellular, Satellite
- Dial-up Isdn
- DSL, Cable Modem and Wireless
- Wireless Equipment: Routers and Antennas

Planning and Architecture

- Planning a Traditional Ethernet Network
- Planning the Architecture of the Network
- Planning Network Services
- Planning for Wireless Access
- Planning the Wireless Topology

Local Area Networks

LAN Characteristics and Concepts
Additional LAN Standards
Wireless LANs
IEEE 802.11
Token Ring
Wireless Considerations

Interconnection of LANs

Repeaters and Switches
Transparent Switching (ethernet)
Switched Ethernet
Layer 2 and 3 Switches
VLANs
Inteconnecting Wireless LANs
Mixing Wired with Wireless.

Wide Area Networks (wans

Wan Characteristics and Concepts
X.25 and Frame Relay
ATM Cell Relay

Routers

Why and When To Use Routers
Routers As Building Blocks of the Internet and Intranets
Wireless Routers
Routing Strategies, Advantages Pitfalls
Multiprotocol Routers
Ip-switching
Qos with Ip
Mpls
Voip
Ipv6
The Internet

Network Applications

TCP/IP Network Planning and Implementation
Functions and Services
Network Applications Overview
Mobile Applications: Wireless Services
Cell Phone Integration

Network Management

Why Network Management Is Critical
snmp
rmon
mibs
Protocol Analyzers
Fault Isolation
Managing the Wireless Network

The Directory

The Need for a Network Directory
X.500: Microsoft Versus Novell
Active Directory Terminology
Planning an Active Directory
Planning an Enterprise Directory

Intranet and Internet Security

- Forms of Encryption
- Public Key
- Trusted Certificates
- IPSec
- Virtual Private Networks (vpns)
- Firewalls and Internet Security

Wireless Security

- Controlling Access By Mac Address
- Extensible Authentication Protocol (eap)
- Connecting To a Radius Server
- Restricting Outbound Access
- Network Address Translation (nat)
- Enabling DMZ and Port Forwarding

Server 2022

- Planning the Active Directory
- Implementing File and Printer Services
- Backup and Recovery
- Installing Active Directory
- Functional Levels
- Planning the Topography
- Planning for Sites
- Replication
- Implementing Users and Groups
- Implementing Policies
- Implementing DFS