SETC Training Corporate Logo

IT Networks Training: Whole Network Design & Implementation (NETFUND, 4 jours)

Description

The course Whole Network Design & Implementation (IT Networks Training) is an exploration of core networking technologies including IP addressing, network services, switching, routing & more. The training includes IPv4 & IPv6 addressing, VLANs, routing protocols (RIP, OSPF, BGP),naming services (DNS & DNSv6), autoconfiguration services (DHCP & DHCPv6), as well as QoS & security considerations. If you are new to the networking world or if you are a manager that needs to supervise an IT Operations team, this IT Networks course is where you should start.

Tarifs

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

Plan de cours

Networks Fundamentals

- Network Components and Terminology
- Understanding Network Technology
- The Components of a Network: Physical and Logical
- Understanding Network Topology and Architecture
- From the LAN to the WAN and Back
- Network Communications: From Physical to Logical

Standards and Processes

- Using Reference Models and Open Standards
- About using the OSI Reference Model
- Introduction to the Layers of the OSI Model
- Practical Applications for OSI Reference Model

Media and Transmission

- The Backbone and Transmission Infrastructure
- Understanding the Backbone
- Overview of Media Types: Serial, STP, UTP, Fibre-Optic and Wireless
- Ethernet Cabling: CAT5, CAT6 and the Different Types
- Describing Wireless Standards

Protocols

- Understanding the Function of Protocols
- Exploring Application Layer Protocols
- Exploring Internet Layer Protocols
- Exploring Network Access Layer Protocols
- Exploring Wireless Protocols

Physical and Logical Topologies

- Physical and Logical Topologies
- Designing a Physical Topology
- Designing a Logical Topology

TCP/IP Fundamentals

- Understanding the TCP/IP Model
- Describing the TCP/IP Encapsulation Process
- Functions at the Internet Layer

Functions of ARP
Understanding IP Based Traffic Routing
About VLANs and Network Traffic Management
Classful IP Addressing
Describing the Functions of IP Addresses
Identifying IP Address Types
Utilizing Diagnostic Tools
Understanding DHCP
Introducing IPv6
IPv6 Address Types
About IPv4 and IPv6 Coexistence
Working with DHCP
How DHCP Works
Planning for DHCP
Implementing DHCP in a Network
Managing DHCP in an Enterprise Environment
About DHCPv6
Network Devices and LAN Operations
Describing Device Functions
Understanding the Routing Process
Describing the Switching Process
Describing End-to-End Communications
Configuring Routers and Switches
Roles of Routers and Switches
The Switch as a Network Device
The Router as a Network Device
Putting the Configuration Together
About Routing
Populating the Routing Table
Configuring Dynamic Routing
Understanding Routing Protocols
Configuring Routing Protocols
IPv6 and Routing Protocols
Working with Network Services
About Name Resolution: NetBEUI, NetBIOS, HostNames and More
Understanding DNS and DNSv6
DNS in a Production Environment
DNSv6 in a Production Environment
Troubleshooting Name Resolution
Wireless Services
Understanding Wireless Technology
Implementing Wireless Access Points
Configuring a Wireless Access Point
About VOIP
VOIP Technologies and Terminology
The Topology of VOIP
Configuring VOIP on a Network
Addressing QoS: Configuration and Performance
Managing Network Applications
Browsers and the Internet

Email Clients and the Network Operations
Virus Checkers and Firewalls
Other Interesting Applications
Managing Users and Security
Security Management: Detection, Levels of Service and Content Filtering
Modern Networks: Present and Future
Current Best Practices in Networking
Future Technologies: The Road Ahead