

NETWORKING

Duration: 24 Hours

Introduction to Computer Networks

- Advantages of Networking,
- Peer-to-Peer and Client/Server Network
- Network Topologies – Star, Ring, Bus, Tree, Mesh, Hybrid
- Type of Networks
- Local Area Networks (LAN)
- Metropolitan Area Networks (MAN)
- Wide Area Networks (WAN)
- Internet
- Ethernet
- Wi-Fi
- Bluetooth
- Mobile Networking
- Wire and wireless Networking
- Difference between Intranet and Internet

Components of the Computer Network

- Familiarization with various Network devices
- Connectors and Cables
- Understanding the Layout of network

Transmission Media

- Communication Media & Connectors
- Unshielded twisted-pair (UTP)
- Shielded twisted-pair (STP)
- Fiber Optics
- Coaxial cable: RJ-45, RJ-11, BNC.
- Understanding color codes of CAT5 cable

Crimping & Punching

- Crimping practice with straight and cross CAT 5 cables
- Punching practice in IO Box and patch panel
- Crimping and making cables

Cabling

- Create cabling in a lab with HUB/Switch and IO Boxes and patch panel.
- Fitting Switch Rack

OSI Model

- The functions of different layers in OSI model

Install & configure a Network

- Installing & Configuring a Peer-to-Peer Network using Windows Software
- Making cables by crimping

IP Addressing & TCP/IP IP Addressing

- Technique (IP4/IP6) and Sub-netting and Super-netting the network
- Installation and Configuration of TCP/IP Protocol

Microsoft Windows Server 2008

- Server concepts
- Installation steps
- Configuration of server
- Concept of Active Directory and DNS
- Setting up of DHCP
- Routing and remote access