Course Code - NET15007

Cisco Networking Part 1 (ICND1 Equivalent)

The course focuses on theoretical principles and practical implementation of Data Networking with Cisco Routers and Switches.

Prequisites:

No prerequisites, but it may be advantageous for delegates to have had some exposure to data networking.

Aim:

To provide delegates with a fundamental understanding of networking with LANs and WANs operating either IPv4 or IPv6, configure routers and switches in a lab environment to achieve a functional network. Describe network fundamentals and build simple LANs and WANs.

Objectives:

By the end of the course delegates will be able to.

- Have an Understanding of Networking Fundamental Principles
- Have an Understanding of OSI / TCP/IP Models, Ethernet and WANs
- Understand Ethernet LANs and the use of Hubs, Bridges and Switches
- Perform Installation and Configuration of Ethernet Switches
- Understand, Configure and Troubleshoot VLANs
- Understand Basic Spanning Tree Concepts and Implementation
- Have an Understanding of IPv4 Addressing, Masks and Subnetting
- Perform IPv4 Configuration of Cisco Routers and Routing
- Understand Routing with Interior Gateway Routing Protocols
- Configure a Router for Single OSPFv2 Operation
- Understand IPv4 Host Connectivity and Troubleshooting
- Design and Implement Networks with Subnets
- Perform VLSM (Variable Length Subnet Masking)
- Understand Route Summarization
- Understand the Operation and Configuration of Standard and Extended ACLs
- Perform basic Router and Switch Security
- Understand and Configure Network Address Translation Services
- Understand IPv6 Protocols and Addresses
- Implement IPv6 on Routers
- Implement IPv6 Routing including Static and Dynamic Routes
- Configure Single Area OSPFv3