

Introduction to Networking and IP

Course Overview

This course will provide a detailed introduction to Internet Protocol (IPv4 & IPv6) its many applications and will enable the student to design and create a wireless Wi-Fi network including a wireless bridge.

Duration

2 Days

Delivery Method

- Classroom
- Tutor Led
- Demonstrations
- Syndicate exercises
- Lectures

Audience

Telecoms and Installation Engineers wishing to gain a working knowledge of networking and Internet Protocol (IP) Addressing.

Course Prerequisites

A basic understanding of telecoms installations.

Course Objectives

On completion of the course delegates will be able to:

- Describe different types of networks and the purpose of each basic component within a network.
- Describe the 7 layers of the OSI model and how they relate to networking.
- Understand how TCP/IP and UDP work and their uses in a network.
- Understand how binary and hexadecimal work and how they relate to IPv4 and IPv6.
- Understand Subnetting and Classless Inter-Domain Routing and how they are used.
- Design and create a wireless Wi-Fi network including a wireless bridge.

Content Headings

- Types of Networks
- Network Components and MAC Addresses
- OSI Model
- TCP/IP and UDP
- Binary and Hexadecimal
- Internet Protocol (IPv4 & IPv6)
- Subnetting and CIDR
- Create a Wireless Network

Assessment

The course includes several observed practical exercises culminating in a final exercise to create a wireless network within the classroom.

