

Network fundamentals

A 1 day training course



Description

A concise overview course covering all aspects of networking with particular emphasis of use of the 7 layer model as a framework for discussing and learning new network terms enabling delegates to recognise the main buzzwords used in the industry.



Key outcomes

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

- ✓ Use the 7 layer model to classify networking terms.
- ✓ Differentiate between LANS and WANS.
- ✓ Recognise bandwidth measurements.
- ✓ List LAN and WAN technologies.
- ✓ Recognise cabling issues in a network.



Training approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning.



Details

Who will benefit?

Sales staff, managers and other non-technical personnel. Technical personnel may benefit more from our Intro to data communications and networking course.

Prerequisites

None.

Duration: 1 day

Customer rating: ★★★★★

Generic training



Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

"Friendly environment with expert teaching that teaches the why before the how."
G.C. Fasthosts

Small class sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

"Excellent course. The small class size was a great benefit..."
M.B. IBM

Hands On training



The majority of our courses use hands on sessions to reinforce the theory.

"Not many courses have practice added to it. Normally just the theoretical stuff is covered."
J.W. Vodafone

Our courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

"Comprehensive materials that made the course easy to follow and will be used as a reference point."
V.B. Rockwell Collins

Customise your course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."
S.R. Qinetiq

Network fundamentals

Course content

What are networks?

What is a network? Types of network, Local Area Networks (LANs), Wide Area Networks (WANs), connecting networks together with routers.

The 7 layer model

What is the 7 layer model? The importance of standards, using the 7 layer model to classify networking terms.

Cables

Copper, Fibre, Air, standards, connectors, LAN cables, WAN cables, distance limitations, hubs and repeaters, other issues. The radio spectrum.

Bandwidth

Bits and bytes. Bandwidth measurements, common technologies and their bandwidth, the impact of applications on bandwidth. Full and half duplex. Joining cables together to increase bandwidth (Link aggregation).

LANs and WANs

What is Ethernet? What is WiFi? What are Leased lines? What is MPLS?

Ethernet switches

Ethernet "packets", MAC addresses, what is a switch, what is the difference between a hub and a switch.

TCP/IP

What is TCP/IP? What is a protocol? What is IP? What is TCP? The role of routers in joining LANs and WANs, What is the Internet?

Applications

Ways to use the network, clients, servers, web browsing and HTTP, Email, instant messaging, multimedia applications.

