

# Networking Microsoft systems

A 5 day **Hands on** training course



## Description

A hands on course covering the network aspects of Microsoft systems. The course progresses from basic TCP/IP tools and configuration settings through to advanced security considerations finishing with an overview of Exchange and IIS. Hands on sessions are based on a choice of Windows Server 2008 or Windows Server 2012 and Windows XP or Windows 7 Customised versions with other Microsoft platforms are also available.



## Key outcomes

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

- ✓ Design networks with consideration for Microsoft issues such as logons.
- ✓ Design, configure and troubleshoot TCP/IP, DNS, WINS and DHCP.
- ✓ Configure security features such as PKI and IPSec.
- ✓ Describe the Windows TCP/IP implementation details.



## 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. Hands on sessions are used throughout to allow delegates to consolidate their new skills.



## Details

### Who will benefit?

Anyone working with Microsoft systems.

### Prerequisites

TCP/IP foundation for engineers.  
Supporting windows server.

**Duration:** 5 days

**Overall 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

# Networking Microsoft systems

## Course Content

### Configuring network cards

PnP, resources, Ethernet cards, wireless cards, dial up networking, other cards, Ethernet settings, layer 2 QoS.

### Configuring and supporting IP

Basic IP settings, advanced IP settings, advanced TCP settings, DrTCP and registry settings, security settings. ipconfig, ping, tracert, netstat, nbstat, arp, route.

### DHCP

DHCP server, authorising the DHCP service, DHCP client, DHCP relays, Address pools, options, lease duration's, Integrating with DNS.

### Microsoft networking overview

Workgroups and domains, Domain controllers, the logon process in a network, the role of Active Directory, synchronisation, protocol stacks and bindings.

### Accessing file and print resources

Shared folders, permissions, network printers, browsing, NetBIOS, SMB.

### WINS

Servers, clients, Client registration, renewing and releasing of names. NetBIOS node types.

### DNS

Overview, Primary and secondary servers, DDNS, zones, resource records.

### The browser service

Master, backup and other browser roles, elections, announcements, recovery from failure, Inter subnet browsing.

### TCP/IP implementation details

Dead gateway detection, Multi homing, multicasting, MTU path discovery, registry settings, QOS and RSVP, Windows as a router, performance implications of Microsoft services.

### Internet Access

Options, NAT, Firewall capabilities and Proxy server, Internet Authentication Service.

### Remote Access

Installing, RAS servers. RAS process, protocols

### Security: PKI

What is PKI?, Certificate services, using and managing certificates, AD and certificates.

### Security: VPNs

PPTP, L2TP, What is IPSec, configuring IPSec.

### Other Microsoft networking services & tools

Netmeeting, instant messaging, white boarding, document collaboration, video conferencing Microsoft Exchange, IIS, Directory replication, SNMP, Net Monitor, integration with other platforms.

