

Course Outline



Tel: +44 (0) 118 979 4000 Fax: +44 (0) 118 979 4000

Email: training@ptr.co.uk Web: www.ptr.co.uk

Audit & Security of Networks

Course Description:

The course is intended for those who need to find out what networks are, how they work and what the prime risks are. It covers the range from wires and PC boards to business objectives and risks. Networking technology and its jargon are explained in non-technical terms.

Having acquired a high level understanding of networking technology, you will learn how to assess security by workshop exercises. All aspects are covered, both business and technical. Business-based workshops are introduced as knowledge is acquired. These require you to decide how networks and applications should be deployed and managed. You will hear commentary on certain real disasters that have happened to high profile companies in the past.

Planning for audits and discussion of suitable tests forms a substantial part of the course. Where hands on is possible, delegates will get a chance to run network probes, port scanners and examine network settings.

The course attempts to demystify the technology surrounding networks and is suitable not only for security specialists but also for non-technical business managers who need to control networking projects.

Pre-requisites:

Delegates should have a good general understanding of IT.

Course Content:

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- **Network security concepts**
 - Security integrated model
 - How to set about securing a network
 - CobiT audit standard for IT infrastructure
 - Network security policy specifics
 - Business considerations for networks
 - Where is the network?
 - Network lifecycle management
 - Vulnerability assessments

- **Network hardware and software**
 - Network software
 - Network hardware components
 - Administrative topologies
 - Network topologies
 - Fibre channel SAN

- **Ethernet and IP**
 - Introduction
 - Ethernet
 - Packets
 - Packet attacks
 - Packet analysers
 - IP addressing
 - DHCP

- **Communication breakdown – the OSI model**
 - OSI (Open Standards Interconnectivity) model
 - Risk analysis based on the OSI model
 - Protocol stacks
 - The ping command

- **Network services and applications**
 - What is a service?
 - Commonly found network services
 - Hands on – ftp and telnet
 - Ports and sockets

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Registered Office: Grenville Court Britwell Road Burnham Bucks SL1 8DF Company Registered No: 2442290 – VAT registration No:532 1929 56

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- **Network services and applications**
 - Footprinting network services
 - DNS
 - Routing services
 - Directory services
 - LDAP SNMP
 - Network mapping tools
 - CISCO Works

- **Wireless LANs**
 - The 802.11b Standard
 - Security
 - WLAN maps on the internet
 - WLAN problems and solutions
 - Warchalking
 - Making your wireless LAN more secure
 - Bluetooth security
 - Wireless security check-list

- **Wide area networks**
 - WAN technology
 - Network management
 - Virtual private networks
 - Business management objectives
 - Performance management
 - WAN traffic visualization and control
 - Service level agreements with WAN providers
 - WAN audit tests

- **Remote access**
 - Remote access topologies
 - Telephone lines
 - Authenticating remote users – the Shiva corporation
 - Defending the remote machine
 - Virtual private networking

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- **Remote access**
 - Auditing equipment cross the internet
 - VPNs
 - Wireless LANs and VPNs
 - VoIP
 - Instant messaging
 - IP version 6 (IPV6)

- **Traffic control**
 - Intrusion examples
 - Firewalls

- **Email**
 - Email architecture
 - Cryptography - assuring integrity and confidentiality
 - Proxy servers

Course Duration:

3 Days