Systems & Network Training

Definitive Firewalls for engineers

A 2 day `Hands on` training course

⭐ Description

A technical hands on training course covering firewall technologies. This focuses on the whys and hows of firewall technology rather than looking at manufacturer specific issues.

👍 Key outcomes

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

✔ Design secure firewall protected networks.

✔ Test firewalls.

✔ Evaluate firewalls.

✔ Configure firewalls.

📷 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?
Technical network staff. Technical security staff.

Prerequisites
IP security foundation for engineers.

Duration: 2 days

Customer rating: ★★★★⯪

Generic training	Small class sizes	Hands On training	Our courseware	Customise your course
Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".	We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.	The majority of our courses use hands on sessions to reinforce the theory.	We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.	Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.
"Friendly environment with expert teaching that teaches the why before the how." G.C. Fasthosts	*"Excellent course. The small class size was a great benefit..."* M.B. IBM	*"Not many courses have practice added to it. Normally just the theoretical stuff is covered."* J.W. Vodafone	*"Comprehensive materials that made the course easy to follow and will be used as a reference point."* V.B. Rockwell Collins	*"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."* S.R. Qinetiq

Definitive Firewalls for engineers

Firewall introduction

Security review, what is a firewall? What do firewalls do? Firewall benefits, concepts. Hands on: Configuring the network to be used in later labs, launching various attacks on a target.

Firewall types

Packet filtering, SPI, Proxy, Personal. Software firewalls, hardware firewalls, blade based firewalls, personal firewalls, which firewall should you use? Firewall products. Hands on: Configuring a simple firewall.

Packet filtering firewalls

Things to filter in the IP header, stateless vs. stateful filtering. ACLs. Advantages of packet filtering. Hands on: Configuring packet filtering firewalls.

Stateful packet filtering

Stateful algorithms, packet-by-packet inspection, application content filtering, tracks, special handling (fragments, IP options), sessions with TCP and UDP. Firewall hacking detection: SYN attacks, SSL, SSH interception. Hands on: Stateful packet inspection firewalls.

Proxy firewalls

Circuit level, application level, SOCKS. Proxy firewall advantages and disadvantages. Hands on: Proxy firewalls.

Personal firewalls

The role of personal firewalls, Windows XP, Zonealarm. Hands on: Configuring a personal firewall.

Firewall architectures

Home based, small office, enterprise, service provider, what is a DMZ? DMZ architectures, bastion hosts, multi DMZ. Virtual firewalls, transparent firewalls. Dual firewall design, high availability, load balancing, VRRP. Hands on: Resilient firewall architecture.

Securing communications

VPNs, IPsec. Firewall configuration of VPNs, integration of dedicated VPN devices and firewalls. Hands on: IPSec VPN configuration.

Testing firewalls

Configuration checklist, testing procedure, monitoring firewalls, logging, syslog. Hands on: Testing firewalls.

Step back

IP security foundation for engineers

Definitive Firewalls for engineers

Step forward

Definitive IP VPNs for engineers

Total IPsec for engineers