Systems & Network Training

Definitive 802.1X for engineers

A 2 day Hands on training course

Description

A hands-on training course concentrating solely on 802.1X. Hands on sessions follow major chapters to reinforce the theory.

Key outcomes

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

✔ Describe 802.1X.

✔ Explain how 802.1X works.

✔ Configure 802.1X

✔ Troubleshoot 802.1X.

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
Total RADIUS 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

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Course content

Introduction
What is 802.1X? Authentication access, 802.3, 802.11. IEEE, 802, 802.1X-2001, 802.1X-2010.

Architecture
Supplicant, Authenticator, Authentication server, EAP, EAPOL, RADIUS, Diameter.

Port configuration
802.1X in a switch environment.
Hands on: Configuring 802.1X.

How it works
Controlled ports, uncontrolled ports.
Authentication flow chart, Initialisation, initiation, negotiation, authentication.
Hands on: 802.1X packet analysis.

802.1X and 802.11
WiFi, WiFi security.
Hands on: 802.1X WiFi port access.

EAP
Extensible Authentication Protocol, RFC 3748, RFC 5247. EAP methods: Weak, MD5, LEAP, Strong: TTLS, TLS, FAST. Encapsulation: 802.1X, PEAP, RADIUS, Diameter, PPP.

802.1X accounting
RADIUS, accounting messages, 802.1X accounting AV pairs.

8021.X and VLANS
VLANs, Guest VLAN, restricted VLAN, voice VLAN.
Hands on: VLAN assignments with 802.1X.

Step back

Total RADIUS for engineers.

Definitive 802.1X for engineers

Step forward

Total IPsec for enginers

Certified Wireless security professional