Systems & Network Training

Total MPLS VPN for engineers

A 2 day Hands on training course

⭐ Description

A hands on course concentrating solely on MPLS VPNs. The course begins with a review of VPN basics before moving onto L3VPNs and MBGP, followed by L2VPNs.

👍 Key outcomes

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

- ✔ Compare, contrast and evaluate MPLS L2VPNs versus L3VPNs.
- ✔ Describe, configure and troubleshoot MPLS L3VPNs.
- ✔ Configure and troubleshoot MBGP.
- ✔ Describe, configure and troubleshoot MPLS L2VPNs.

📽 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 MPLS VPNs.

Prerequisites
Concise MPLS 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

MPLS VPN basics

LSR, PE and P router roles. What is a VPN? MPLS VPN types, MPLS VPN comparison, MPLS L3VPN, L2VPN. VPN architectures. Hands on: Building the base network.

L3VPN

Separate routing tables, The Virtual Routing Table, VRFs, Route Distinguisher (RD), VNPv4 addresses. Hands on: Minimal VRF configuration, routing between customer and provider (PE-CE).

MBGP

MP-BGP, IPv4 routing, IPv6 routing, VPNv4 addresses, VPNv6 addresses. Exchanging labels. Exchanging routes. Route targets, communities. Route reflectors. Hands on: MBGP setup. MPLS L3VPN troubleshooting.

L2VPN

Why L2 not L3? Services: TDM, ATM, Frame Relay, Ethernet. Pseudowires. Hands on: Simple L2VPN configuration.

Pseudowires

VPWS, AToM, Attachment Circuit, Traffic encapsulation, Ethernet over MPLS. Ethernet MTU considerations. VC types. Hands on: PW configuration and troubleshooting.

VPLS

Ethernet multipoint connectivity. Virtual Forwarding Instance (VFI), Virtual Switching Instance. Flooding, MAC address management, split horizons. Hierarchical VPLS. Signalling: LDP based. BGP based. Auto discovery. Hands on: VPLS configuration and troubleshooting.

Next generation L2VPN

E-VPN, PBB-EVPN.

What our customers say

"Absolutely brilliant, very knowledgeable and helpful trainer would recommend to teach anyone. Kept me interested 100% of the time which is very impressive as this does not happen often, if at all!"

O. B. Network Rail

"The best technical course I've been on!."

L. W. Fujitsu Telecoms Europe

"Very well thought out and structured course. Would recommend 100%. Lots of equipment, good quality."

A.R. Unipart

"Course content is interesting. Relevant to current systems and presented well."

S.S-T. Arqiva

Step back

Concise MPLS for engineers → Total MPLS VPN for engineers

Step forward

→ Definitive IP VPNs for engineers

→ Definitive Ethernet switching for engineers