Systems & Network Training

Total STP for engineers

A 2day Hands on training course

Save on expenses. This course is also available on your premises.

Description

The Spanning Tree Protocol (STP) dates from 1985. This course explores in depth how the protocol works and the implications this has on network performance. We also study STP variants including 802.1w (RSTP) and 802.1s (MSTP).

Key outcomes

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

- ✔ Explain how STP works.
- ✔ Explain how RSTP works
- ✔ Explain how MSTP works.
- ✔ Troubleshoot STP and variants.

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.

Prerequisites
Definitive Ethernet switching for engineers.

Duration: 2 days

Overall 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

STP

What is 802.1D, what is STP, resilience, broadcast storms, forwarding and blocking, single path. Hands on: Impact of broadcast storms, enabling disabling STP.

STP operation

STP frames, BPDUs, root bridge election, blocked ports, root ports, designated ports. STP path costs. Hands on: Analysing STP, troubleshooting implications.

Topology changes

Hello timer, Forward delay timer, max age timer, Topology Change Notification (TCN) BPDU. Hands on: STP convergence.

STP enhancements and tuning

Bridge ID, Bridge priority, port priority, 30 second delay, Edge ports, PortFast, root guard, loop guard, BPDU guard. Hands on: Root bridge positioning, improving STP convergence.

RSTP

802.1w, Improvements, convergence times. RSTP bridge port roles, RSTP switch port states. Edge ports, link ports. Hands on: RSTP configuration and convergence.

VLANs and STP

Access/untagged ports, trunk/tagged ports, PVST, PVST+, RPVST, MISTP, MSTP and 802.1s. MSTP BPDUs. Instances, Load balancing, impact on CPU. Hands on: MSTP load balancing.

Interoperability

Regions, Virtual bridges, domains. Hands on: STP, RSTP and MSTP interoperation.

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