Systems & Network Training

Server load balancing

A 2 day Hands on training course

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

Description

This two-day Server Load Balancing course introduces the concepts of SLB from the reasons to implement, through the basics and then onto details studies of load distribution, health checks, layer 7 switching and Global SLB.

Key outcomes

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

- ✔ Explain packet paths when implementing SLB.
- ✔ Recognise the impact of different topologies.
- ✔ Evaluate SLB load distribution methods.
- ✔ Describe how load balancers can improve security.
- ✔ Explain how GSLB works.

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 SLB.

Prerequisites
None.

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

Introduction
Concept, reasons, benefits, alternatives. Other features: Security, Caching.

SLB concepts
Architectures, Virtual servers, real servers, Virtual IP address, health checks. DNS load balancing. Packet walk using SLB.

Load balancing
6 modes of bonding and load balancing without SLB. ISP load balancing. Health. Distribution policies: Round Robin, least connections, weighted distributions, response time, other variations. Persistent versus concurrent.

Layer 4 switching
L2 SLB, L3 SLB, single arm SLB, DSR, more packet walking, TCP versus UDP, Port numbers.

Layer 7 switching
Persistence. Cookie switching, Cookie hashing, Cookie insertion, URL switching, URL Hashing, SSL.

Health checks
Layer 3: ARP, ping. Layer 4: SYN, UDP. Layer 7: HTTP GET, Status codes, HTTP keepalives, content verification, SSL. Other application keepalives. What to do after failure and recovery.

Security
NAT complications, DOS attack protection, SYN attack protection, Rate limiting: connections, transactions. SSL offload.

Redundancy
Hot standby, Active standby, Active active. Stateful, stateless. VRRP, STP.

GSLB
Anycasting. DNS, TTL, DNS load balancing, problems with DNS load balancing,. HTTP redirect, health, thresholds, round trip times, location.

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