Systems & Network Training

Implementing Cisco IP routing

A 5 day Hands on training course

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

Description

This 5 day course is designed to provide professionals working with medium to large networks with the skills and knowledge required to incorporate advanced routing concepts when implementing scalability for Cisco routers that are connected to LANs and WANs. Delegates will be able to dramatically increase the number of routers and sites using these techniques instead of redesigning the network when additional sites or wiring configurations are added.

Key outcomes

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

- Configure EIGRP in IPv4 and IPv6 environment.
- Configure OSPF in IPv4 and IPv6 environment.
- Implement route redistribution.
- Implement path control using policy based routing and IP SLA.
- Implement enterprise Internet connectivity.
- Secure Cisco routers according to best practices.

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?
Network professionals looking to implement routing solutions using Cisco IOS services and features.

Prerequisites
ICND1 and ICND 2

Duration: 5 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

Basic network and routing concepts
Differentiating routing protocols
Understanding network technologies
Connecting remote locations with the headquarters
Implementing RIPng

EIGRP implementation
Establishing EIGRP neighbor relationships
Building the EIGRP topology table
Optimizing EIGRP behavior
Configuring EIGRP for IPv6
Discovering Named EIGRP configuration

OSPF implementation
Establishing OSPF neighbor relationship
Building the Link state database
Optimizing OSPF behaviour
Configuring OSPFv3

Configuration of redistribution
Implementing basic routing protocol redistribution
Manipulating redistribution using route filtering

Path control implementation
Using Cisco express forwarding switching
Implementing path control

Enterprise internet connectivity
Planning enterprise internet connectivity
Establishing single-homed IPv4 internet connectivity
Establishing single-homed IPv6 internet connectivity
Improving resilience of internet connectivity
Considering advantages of using BGP
Implementing basic BGP operations
Using BGP attributes and path selection process
Controlling BGP routing updates
Implementing BGP for IPv6 internet connectivity

Routers and routing protocol hardening
Securing Cisco routers
Describing routing protocol authentication options
Configuring EIGRP authentication
Configuring OSPF authentication
Configuring BGP authentication

Challenge labs
Lab 1: Configure RIPng
Lab 2: Configure EIGRP
Lab 3: Configure and optimize EIGRP for IPv6
Lab 4: Implement EIGRP for IPv4 and IPv6 through named configuration
Lab 5: Configure OSPF
Lab 6: Optimize OSPF
Lab 7: Configure OSPFv3
Lab 8: Implement redistribution using route filtering
Lab 9: Implement path control
Lab 10: Configuring BGP
Lab 11: Configure authentication for EIGRP routes
Lab 12: Configure BGP authentication
Lab 6-1: Configure BGP operations
Lab 6-2: Manipulate EBGP path selections

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