

Implementing Cisco IP Routing

Duración: 5 Días **Código del Curso: ROUTE**

Temario:

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.

Dirigido a:

This course is intended for Network professionals who want to correctly implement routing based solutions within a given network design, using Cisco IOS services and features, where implementation includes planning, configuring and verification.

Objetivos:

- **After you complete this course you will be able to:**
- Plan and document the configuration and verification of routing protocols and its optimization in enterprise networks.
- Identify the technologies, components, and metrics of EIGRP to implement and verify EIGRP routing in diverse, large-scale internetworks based on requirements.
- Identify, analyze and match OSPF multiarea routing functions and benefits for routing efficiencies in network operations in order to implement and verify OSPF routing in a complex enterprise network.
- Implement and verify a redistribution solution in a multi-protocol network that uses IOS features to control path selection and loop free topology according to a given network design and requirements.
- Evaluate common network performance issues and identify the tools needed to provide a layer 3 path control that uses IOS features to control the path.
- Implement and verify a Layer 3 solution using BGP to connect an enterprise network to a service provider

Prerequisites:

Attendees should meet the following prerequisites:

Interconnecting Cisco Network Devices Part 1 (ICND1)

Interconnecting Cisco Network Devices Part 2 (ICND2)

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Cisco CCNA Certification Fast Track Programme (CCNABC)

Practical experience in installing, operating and maintaining Cisco routers & switches in an enterprise environment is recommended.

Exámenes y certificación

Recommended preparation for exam(s):

- 642-902 ROUTE - Implementing Cisco IP Routing

This exam is required for those delegates wishing to achieve either the Cisco Certified Network Professional, the Cisco Certified Internetwork Professional or the Cisco Certified Design Professional Certifications

Si siguientes cursos recomendados:

The following courses are recommended for further study:

- SWITCH - Switching (CCNP,CCDP)
- TSHOOT-Troubleshooting and Maintaining Cisco IP Networks(CCNP)
- ARCH- Designing Cisco Network Architectures (CCDP)
- QOS- Implementing Cisco Quality of Service (CCIP)
- BGP- Configuring BGP on Cisco Routers (CCIP)
- MPLS- Implementing Cisco MPLS (CCIP)

Contenido:

Planning Routing Services to Requirements

- Assessing Complex Enterprise Network Requirements
- Common Maintenance Processes and Procedures
- Lab 1-1 Debrief

Implementing an EIGRP based Solution

- Planning Routing Implementations with EIGRP
- Implementing and Verifying Basic EIGRP for the Enterprise LAN Architecture
- Lab 2-1 Debrief
- Configuring and Verifying EIGRP for the Enterprise WAN Architecture
- Lab 2-2 Debrief
- Implementing and Verifying EIGRP Authentication
- Lab 2-3 Debrief
- Advanced EIGRP Features in an Enterprise Network
- Lab 2-4 Debrief

Implementing a Scalable Multiarea Network OSPF Based Solution

- Planning Routing Implementations with OSPF as Scalable Routing Protocol
- How OSPF Packet Processes Work
- Improving Routing Performance in a Complex Enterprise Network
- Configuring and Verifying OSPF Routing
- Lab 3-1 Debrief
- Lab 3-2 Debrief
- Configuring and Verifying OSPF Route Summarization
- Lab 3-3 Debrief
- Configuring and Verifying OSPF Special Area Types
- Lab 3-4 Debrief
- Configuring and Verifying OSPF Authentication
- Lab 3-5 Debrief

Implement an IPv4-based Redistribution Solution

- Assessing Network Routing Performance and Security Issues
- Operating a Network Using Multiple IP Routing Protocols
- Configuring and verifying Route Redistribution
- Lab 4-1 Debrief

Implementing Path Control

- Assessing Path Control Network Performance Issues
- Lab 5-1 Debrief

Connecting an Enterprise Network to ISP Networks

- Planning the Enterprise-to-ISP Connection
- Consider the Advantages of Using BGP
- Comparing the Functions and Uses of EBGP and IBGP
- Configuring and Verifying Basic BGP Operations
- Lab 6-1 Debrief
- Using the BGP Attributes and Path Selection Process
- Lab 6-2 Debrief

Labs

- Lab 1-1: Assess skills for implementing complex networks
- Lab 2-1: Configure and verify EIGRP operations
- Lab 2-2: Configure and verify EIGRP circuit emulation, and Frame Relay operations
- Lab 2-3: Configure and verify EIGRP Authentication
- Lab 2-4: Implement and Troubleshoot EIGRP operations
- Lab 3-1: Configure and verify OSPF to improve routing performance
- Lab 3-2: Implement and verify OSPF multiarea routing
- Lab 3-3: Configure and verify OSPF route summarization for interarea and external routes
- Lab 3-4: Configure and verify OSPF special area types
- Lab 3-5: Configure and Verify OSPF Authentication
- Lab 4-1: Configure route redistribution between multiple IP routing protocols
- Lab 5-1: Configure and verify Path Control between multiple IP routing protocols
- Lab 6-1: Configure BGP Operations
- Lab 6-2: Manipulate EBGP Path selections

Más información:

Para más información o para reservar tu plaza llámanos al (34) 91 425 06 60

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