ENARSI (IMPLEMENTING CISCO ENTERPRISE ADVANCED ROUTING AND SERVICES) 1.0

Objetivo

After taking this course, you should be able to: Configure classic Enhanced Interior Gateway Routing Protocol (EIGRP) and named EIGRP for IPv4 and IPv6 Optimize classic EIGRP and named EIGRP for IPv4 and IPv6 Troubleshoot classic EIGRP and named EIGRP for IPv4 and IPv6 Configure Open Shortest Path First (OSPF)v2 and OSPFv3 in IPv4 and IPv6 environments Optimize OSPFv2 and OSPFv3 behavior Troubleshoot OSPFv2 for IPv4 and OSPFv3 for IPv4 and IPv6 Implement route redistribution using filtering mechanisms Troubleshoot redistribution Implement path control using Policy-Based Routing (PBR) and IP service level agreement (SLA) Configure Multiprotocol-Border Gateway Protocol (MP-BGP) in IPv4 and IPv6 environments Optimize MP-BGP in IPv4 and IPv6 environments Troubleshoot MP-BGP for IPv4 and IPv6 Describe the features of Multiprotocol Label Switching (MPLS) Describe the major architectural components of an MPLS VPN Identify the routing and packet forwarding functionalities for MPLS VPNs Explain how packets are forwarded in an MPLS VPN environment Implement Cisco Internetwork Operating System (IOSÂ®) Dynamic Multipoint VPNs (DMVPNs) Implement Dynamic Host Configuration Protocol (DHCP) Describe the tools available to secure the IPV6 first hop Troubleshoot Cisco router security features Troubleshoot infrastructure security and services

PÃºblico Alvo

Enterprise network engineers System engineers System administrators Network administrators

PrÃ©-Requisitos

Before taking this course, you should have: General understanding of network fundamentals Basic knowledge of how to implement LANs General understanding of how to manage network devices General understanding of how to secure network devices Basic knowledge of network automation

Carga HorÃ¡ria

40 horas (5 dias).

ConteÃºdo ProgramÃ¡tico

Implementing EIGRP

Optimizing EIGRP

Troubleshooting EIGRP

Implementing OSPF

Optimizing OSPF

Troubleshooting OSPF

Implementing Internal Border Gateway Protocol (IBGP)

Optimizing BGP

Implementing MP-BGP

Troubleshooting BGP

Configuring Redistribution

Troubleshooting Redistribution *(Self Study)*

Implementing Path Control

Exploring MPLS *(Self Study)*

Introducing MPLS L3 VPN Architecture *(Self Study)*

Introducing MPLS L3 VPN Routing *(Self Study)*

Configuring Virtual Routing and Forwarding (VRF)-Lite

Implementing DMVPN

Implementing DHCP

Troubleshooting DHCP

Introducing IPv6 First Hop Security *(Self Study)*

Securing Cisco Routers

Troubleshooting Infrastructure Security and Services *(Self Study)*

Lab Outline
Configure EIGRP Using Classic Mode and Named Mode for IPv4 and IPv6
Verify the EIGRP Topology Table
Configure EIGRP Stub Routing, Summarization, and Default Routing
Configure EIGRP Load Balancing and Authentication
LAB: Troubleshoot EIGRP Issues
Configure OSPFv3 for IPv4 and IPv6
Verify the Link-State Database
Configure OSPF Stub Areas and Summarization
Configure OSPF Authentication

Troubleshoot OSPF
Implement Routing Protocol Redistribution
Manipulate Redistribution
Manipulate Redistribution Using Route Maps
Troubleshoot Redistribution Issues
Implement PBR
Configure IBGP and External Border Gateway Protocol (EBGP)
Implement BGP Path Selection
Configure BGP Advanced Features
Configure BGP Route Reflectors
Configure MP-BGP for IPv4 and IPv6
Troubleshoot BGP Issues
Implement PBR
Configure Routing with VRF-Lite
Implement Cisco IOS DMVPN
Obtain IPv6 Addresses Dynamically
Troubleshoot DHCPv4 and DHCPv6 Issues
Troubleshoot IPv4 and IPv6 Access Control List (ACL) Issues
Configure and Verify Control Plane Policing
Configure and Verify Unicast Reverse Path Forwarding (uRPF)
Troubleshoot Network Management Protocol Issues: Lab 1
Troubleshoot Network Management Protocol Issues: Lab 2