建置 Cisco 企業網路進階路由及服務

代碼	ENARSI
中文名稱	建置 Cisco 企業網路進階路由及服務
英文名稱	Implementing Cisco Enterprise Advanced Routing and Services
課程長度	5 天
上課時間	09:00 ~17:00
費用	68,000
教材	原廠教材
考試代碼	300-410
適合對象	Course Benefits: This course will help you: ● Gain the knowledge you need to install, configure, operate, and ● troubleshoot an enterprise network ● Qualify for professional-level job roles in advance routing and services ● Prepare for the Implementing Cisco Enterprise Advanced Routing and ● Services (300-410 ENARSI) exam, which will be available beginning ● February 24, 2020 Job Roles ● Enterprise network engineers ● System engineers ● System administrators ● Network administrators
學前基礎	Course Prerequisites: 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 These Cisco courses are recommended to help you meet these prerequisites: ● Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR) v1.0 ● Interconnecting Cisco Networking Devices, Part 1 (ICND1) v3.0 ● Interconnecting Cisco Networking Devices, Part 2 (ICND2) v3.0
課程目標	Course Objectives: 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 (IOS®) 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
課程內容	**Course Outline** • 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 • Implementing Path Control • Exploring MPLS • Introducing MPLS L3 VPN Architecture • Introducing MPLS L3 VPN Routing • Configuring Virtual Routing and Forwarding (VRF)-Lite • Implementing DMVPN • Implementing DHCP • Troubleshooting DHCP • Introducing IPv6 First Hop Security • Securing Cisco Routers • Troubleshooting Infrastructure Security and Services **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