

HW-HCIPDARS



HCIP – DATACOM – ADVANCED ROUTING & SWITCHING TECHNOLOGY

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
5 Days	Professional	Datacom	ILT/VILT	Huawei Voucher

INTRODUCTION

HCIP-Datacom-Advanced Routing & Switching technology certification course covers advanced routing and switching knowledge in the data communication field, including advanced IGP features, advanced BGP features, IPv6 routing, advanced Ethernet technologies, MPLS technologies, Network O&M, Network Troubleshooting, and Network Cutover.

AUDIENCE PROFILE

- Engineers who want to become senior Data Communication engineers.
- Engineers who want to obtain the HCIP-Datacom-Advanced Routing & Switching Technology Certification.

PREREQUISITES

- Be familiar with common operations of Huawei network devices.
- Have attended and acquired the knowledge and skills described in the HCIA-Datacom and HCIP-Datacom-Core Technology courses.

COURSE OBJECTIVES

After completing the HCIP-Datacom-Advanced Routing & Switching Technology training, you will be able to:

- Describe OSPF and IS-IS fast convergence technologies.
- Configure OSPF and IS-IS equal-cost routes.
- Describe the application scenarios of OSPF forwarding addresses.
- Using regular expressions in AS_Path filter and community filter configurations.
- Configure BGP ORF and peer group functions.
- Analyse the differences between OSPFv3 and OSPFv2.
- Describe the IPv6 extensions of IS-IS.
- Describe the IPv6 extensions of BGP.
- Describe the working principle of VLAN aggregation.
- Describe the application scenarios of MUX VLAN.
- Describe the QinQ implementation mode.
- Describe the types and configurations of port isolation.
- Describe the technical principles of port security.
- Implements MAC address flapping detection.
- Expound the switch traffic suppression and storm control functions.
- Describe the application scenarios of DHCP snooping.
- Describe the working principle of IP Source Guard.
- Describe the working principle of MPLS.

- Describe the basic concepts and working mechanism of LDP.
- Describe the basic concepts of MPLS VPN.
- Describe route transmission and label distribution of MPLS VPN.
- Describe the MPLS VPN data forwarding process.
- MPLS VPN Deployment (Intranet Solution)
- MPLS VPN Deployment (Hub&Spoke Solution).
- Describe the extended functions and features of OSPF for MPLS VPN.
- Describe routine maintenance items.
- Describe the functions and features of Information Centre.
- Using Common Maintenance Tools
- Describe troubleshooting methods.
- Analyse the fault that the neighbour relationship of the routing protocol cannot be established.
- Write the troubleshooting guide.
- Describe the operation procedure and specifications of the migration.
- Describe common migration scenarios.

COURSE CONTENT

Module 1 : Advanced IGP Features

- OSPF fast convergence, OSPF Route Control, Other OSPF Features, Advanced IS-IS Features

Module 2: Advanced BGP Features

- BGP route control, Introduction to BGP Features, Networking of BGP RRs

Module 3: IPv6 Routing

- IPv6 static route, OSPFv3 Principles and Configuration, IS-IS (IPv6) Principles and Configuration, BGP4+ Principles and Configuration

Module 4: Advanced Ethernet Technologies

- Super-VLAN, MUX-VLAN, QinQ

- Ethernet Switching Security: Port Isolation, MAC Table Security, Port security , MAC Address Flapping Prevention and Detection , MACsec , Switch traffic control , DHCP Snooping , IP Source Guard

Module 5: MPLS Technology

- MPLS Principles and Configuration: MPLS Overview, MPLS Forwarding, Static LSP
- MPLS LDP Principles and Configuration: Basic Concepts of LDP, Working Principle of LDP, Basic LDP Configurations
- MPLS VPN Principles and Configuration: MPLS VPN Overview, MPLS VPN route exchange, MPLS VPN packet forwarding, MPLS VPN Configuration and Implementation

- MPLS VPN Deployment and Application: MPLS VPN Application and Networking Overview, Typical Application Scenarios and Deployment of MPLS VPN, OSPF VPN expansion

Module 6; Network O&M

- Routine Maintenance, Information collection tool

Module 7: Troubleshooting

- Structured troubleshooting process, Core Ideas and Methods of Network Troubleshooting, Troubleshooting Common Network Faults

Module 8: Network Migration

- Basic Concepts of Migration, Migration Process

ASSOCIATED CERTIFICATIONS & EXAM

This course will prepare delegates to take the HCIP-Datcom-Advanced Routing & Switching Technology exam # H12-831 exam.

Passing HCIP-Datcom-Advanced Routing & Switching Technology V1.0 certificate indicates that you are competent for the position of network engineer in a medium-or large-sized enterprise, be capable of planning and designing, deploying and maintaining, and locating faults on a medium-or large-sized enterprise network by using Huawei datcom devices, and design solutions with high security, availability, and reliability for network applications.