

HW-HCIPSDWPD

HCIP-DATACOM SDWAN: PLANNING AND DEPLOYMENT



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

INTRODUCTION

This 5-day course will cover enterprise WAN interconnection scenarios, GRE technology, IPsec VPN technology, QoS basic principles, HA technology, SD-WAN deployment, SD-WAN management and O&M, SD-WAN networking principles and planning, SD-WAN application experience, SD-WAN security, SD-WAN intelligent O&M, and SD-WAN Hands on Lab Practice.

AUDIENCE PROFILE

SDWAN engineers and for those individuals preparing to take the HCIP-Datacom-SD-WAN Planning and Deployment exam as part of the HCIP Datacom Certification.

PREREQUISITES

It is recommended that you have already successfully completed the HCIP-Datacom-Core Technology course as a minimum.

COURSE OBJECTIVES

After completing this course, delegates should be able to:

- Describe basic concepts of SD-WAN deployment planning.
- Describe the management boundary of SD-WAN multi-tenant.
- Describe SD-WAN deployment modes and application scenarios.
- Describe the overall process of implementing application experience.
- Describe the function of link quality detection.
- Describe HQoS application scenarios.
- Describes the basic principles and application scenarios of the service security function in the SD-WAN solution.
- Describes various visualized monitoring functions provided by iMaster NCE-WAN.
- Describes various fault diagnosis methods provided by iMaster NCE-WAN.
- Describe the basic concepts of tunnels.
- Describe the basic working principles of GRE.
- Describe the basic security mechanism of GRE.
- Describe the basic application scenarios of GRE.
- Describe the basic concepts of IPsec.
- Describe the basic working principles of IPsec.
- Describe the basic application scenarios of IPsec.
- Describe the basic concepts of MP-BGP.
- Describe the origin of EVPN.
- Describe common EVPN route types.
- Describe the background of QoS.
- Describe the working principle of the QoS DiffServ model.

- Describe the application scenarios of different QoS functions.
- Describe basic QoS configurations.
- Describe common technologies and principles of link detection.
- Describe common technologies and principles of link backup.
- Describe the basic working principles and application scenarios of the SAC.
- Describe the basic working principles and application scenarios of SPR.
- Describe the functions and features supported by AR routers.
- Describe the WLAN service features of AR routers.
- Describe the security service features of AR routers.
- Describe the disadvantages of the SNMP protocol.
- Describe how NETCONF flexibly controls devices.
- Describe the advantages of Telemetry collection of device status and performance.
- Describe the northbound RESTful interface of the NMS/controller.
- Describe the common network faults
- Describe typical services in the financial industry.
- Describe the informatization development trend of the financial industry
- Describe the network architecture of the financial industry
- Describe the SD-WAN design roadmap for the financial industry
- Describe the challenges of WAN interconnection in the cloud environment.
- Explain the basic concepts of SDN.
- Explain the basic concepts of SD-WAN.
- Describe the Huawei SD-WAN solution.
- Describe the traditional WAN interconnection solution.
- Describe technologies used in WANs.
- Describe the three application scenarios of SD-WAN.

COURSE CONTENT

Module 1: SD-WAN Solution Deployment and Design

Topic 1: Huawei SD-WAN Solution Technical Overview

- Architecture and Components of Huawei SD-WAN Solution
- Huawei iMaster NCE-WAN Controller
- Huawei SD-WAN Solution Principles
- Introduction to Huawei SD-WAN CPE

Topic 2: SD-WAN Deployment

- SD-WAN Deployment Overview
- SD-WAN Tenant Management
- SD-WAN Zero Touch Provisioning

Topic 3: SD-WAN Networking Principles and Planning

- Basic Concepts of SD-WAN Networking
- SD-WAN Networking Principles
- SD-WAN Networking Design

Topic 4: SD-WAN Application Experience

- Application Experience Solution Overview
- Application identification and intelligent traffic steering
- HQoS
- WAN optimization

Topic 5: SD-WAN Security

- SD-WAN Security Overview
- System security
- Service security

Topic 6: SD-WAN Intelligent O&M

- Intelligent O&M Overview
- monitoring
- maintenance

Module 2: Key Technologies for WAN Interconnection

Topic 1: GRE Technology

- Basic Principles of GRE
- GRE Security Mechanism
- GRE Application Scenario
- GRE Configuration

Topic 2: IPsec VPN Technology

- Basic Concepts of IPsec
- Basic Principles of IPsec
- IPsec Application Scenarios
- IPsec Configuration

Topic 3: BGP EVPN Basics

- MP-BGP
- EVPN

Topic 4: Basic Principles of QoS

- QoS Technology Overview
- QoS traffic classification and marking
- Traffic Rate Limiting
- Congestion avoidance technology
- Congestion Management Technology
- Introduction to HQoS

Topic 5: HA technology

- Link reliability
- Network reliability
- Service reliability

Topic 6: Introduction to the Multi-Service Gateway

- AR Functions and Features
- AR WLAN Service Features
- AR Security Service Features

Topic 7: Management and O&M

- Introduction to Zero Touch Provisioning
- Introduction to Network Maintenance
- Network O&M

Module 3: SD-WAN Design Practice**Topic 1: SD-WAN Design Practice (Financial Scenario)**

- Background of the Finance Industry
- Overall SD-WAN Design for the Finance Industry
- SD-WAN Design Cases in the Finance Industry

Module 4: WAN Interconnection Overview**Topic 1: WAN Interconnection Overview**

- Enterprise WAN Interconnection Status
- Challenges to Enterprise WAN Interconnection
- Birth of SD-WAN
- Introduction to Huawei SD-WAN Solution

Topic 2: WAN Interconnection Technologies and Typical Scenarios

- Traditional enterprise WAN interconnection solution
- Enterprise WAN Interconnection Technology Application
- SD-WAN Application Scenarios

ASSOCIATED CERTIFICATIONS & EXAM

This course will prepare delegates to take the HCIP-Datcom-SD-WAN Planning and Deployment certification exam # H12-871 (Written)

The HCIP-Datcom-SD-WAN Planning and Deployment V1.0 exam covers high-level knowledge about enterprise WAN interconnection scenarios in the data communications field, enterprise WAN interconnection scenarios, GRE technologies, IPsec VPN technologies, basic QoS principles, HA technologies, SD-WAN deployment, SD-WAN management and O&M, SD-WAN networking principles and planning, SD-WAN application experience, SD-WAN security, SD-WAN intelligent O&M, and SD-WAN design practices.

Obtaining any certificate in the HCIP-Datcom series certification requires passing the core exam and corresponding sub-direction exam, the order of the two exams is not required. If you pass the core exam first and then pass any of the sub-direction exams within the validity period of the core exam results can obtain the corresponding certificate.