HCIE-Datacom V2.0 Exam Outline

Huawei Certification HCIE-Datacom V2.0 Certification Exam

Exam Code	H12-891	H12-892
Exam Name	HCIE-Datacom (Written)	HCIE-Datacom (Lab)
Exam language	ENU	ENU
Question Type	Single-answer Question, Multiple-answer Question, True or false, Short Response Item, Drag and Drop Item	Operation, Essay Item
Exam fees	300 USD	1200 USD
Exam Duration	90 min	480 min
Passing score/Total score	600/1000	80/100

Exam Content (Written)

The HCIE-Datacom V2.0 exam covers knowledge and skills related to campus and WAN planning, deployment, and O&M, including typical campus network technologies, VXLAN fundamentals and configuration, network access control, free mobility, GRE and IPsec VPN technologies, QoS technologies, campus network solution, campus network design, SD-WAN solution, SD-WAN network design, Xinghe AI campus network, typical WAN technologies, inter-AS MPLS L3VPN, SRv6 fundamentals and configuration, SRv6 SRH Compression Fundamentals and Configuration, SRv6 reliability technologies, WAN design, AI WAN, network automation technologies and practices, network intelligent O&M, and network troubleshooting.

Exam Content (Lab)

The HCIE-Datacom V2.0 lab exam covers hands-on skills in campus and WAN planning and design, deployment and O&M. It includes the deployment of campus network based on different network architectures, covering basic campus services, Layer 2 and Layer 3 service transport, wireless network, network access control and security policies, and SD-WAN solutions. It also includes the configuration of IGP, BGP, MPLS L3VPNv4/v6, EVPN

L3VPNv4/v6, SRv6 BE and Policy, SRv6 network slicing, SRv6 SRH compression and reliability, routing and traffic control, QoS, network automation development, and network O&M.

Knowledge Point Percentage

Key Points	Written Percentage	Lab Percentage
Campus Network Planning and Deployment	43%	45%
WAN Planning and Deployment	33%	35%
Network Automation	10%	5%
Intelligent Network O&M	14%	15%

Knowledge points

Campus Network Planning and Deployment

- Datacom Network Overview
  - Data Communication Network Overview
  - Data Communication Network Architecture
  - Huawei Xinghe AI Network Solution
- Typical Campus Network Technologies
  - Campus Network Overview
  - Typical Campus Network Technologies
  - Campus Network Cases
- VXLAN Fundamentals and Configuration
  - Technical Background of VXLAN and Campus Network Virtualization
  - Basic Concepts and Fundamentals of VXLAN
  - BGP EVPN
  - Campus Network Virtualization
- Network Access Control
  - Overview of NAC
  - User Access Authentication

- NAC Configuration
- Policy Association

- Free Mobility
  - Technical Background and Basic Concepts of Free Mobility
  - Working Mechanism of Free Mobility
  - Free Mobility Solution Design
- GRE and IPsec VPN Technologies
  - Overview of VPN Technologies
  - GRE Fundamentals and Configuration
  - IPsec Fundamentals and Configuration
- QoS Technology
  - QoS Overview
  - Traffic Classification
  - Flow Control Policy
  - Congestion Avoidance
  - Congestion Management
  - Introduction to HQoS
- Campus Network Solution
  - Solution Overview
  - Office Campus Network
  - Simplified Campus Network
  - Production Campus Network
- Office Campus Network Design
  - Office Campus Network Overview
  - Office Campus Network Design
  - Typical VLAN Networking of an Office Campus
  - Typical VXLAN Networking of an Office Campus

- Production Campus Network Design
  - Overview of Production Campus Networks
  - Production Campus Network Design
  - Typical Production IT Networking
  - Typical Production OT Networking
  - Typical Networking of a Pan-Industrial Production Network
- SD-WAN Solution
  - Branch Interconnection Overview
  - SD-WAN Solution
  - Solution Functions and Key Technologies
  - SD-WAN Application Scenarios
- SD-WAN Network Design
  - SD-WAN Network Overview
  - SD-WAN Networking Design
  - SD-WAN Service Design
  - SD-WAN Reliability and Security Design
  - Typical SD-WAN Networking
- Xinghe AI Campus Network
  - Changes and Challenges Facing Campus Networks in the AI Era
  - Xinghe AI Campus Solution

WAN Planning and Deployment

- Typical WAN Technologies
  - Enterprise WAN Overview
  - Overview of Enterprise WAN Service Transport Technologies
  - Overview of Enterprise WAN Service Assurance Technologies
- Inter-AS MPLS L3VPN
  - Background of Inter-AS VPN Solutions

- Fundamentals and Configurations of Inter-AS VPN Option A
- Fundamentals and Configurations of Inter-AS VPN Option B
- Fundamentals and Configurations of Inter-AS VPN Option C

- SRv6 Fundamentals and Configuration
  - SRv6 Overview
  - SRv6 Fundamentals
  - SRv6 Network Slicing
  - Configuration Examples for L3VPNv4 over SRv6
- SRv6 SRH Compression Fundamentals and Configuration
  - Overview of SRv6 SRH Compression
  - SRv6 SRH 32-bit Compression
  - SRv6 SRH 16-bit Compression
- SRv6 Reliability Technology
  - SRv6 Detection Technologies
  - SRv6 Protection Technologies
  - SRv6 Microloop Avoidance Technologies
  - SRv6 Reliability Configuration Examples
- WAN Design
  - Huawei WAN Solution Overview
  - Enterprise WAN Design Overview
  - Underlay Network Design
  - Overlay Network Design
  - Reliability Design
  - Management and O&M Design
- AI WAN
  - Requirements for WANs in the Cloud and AI Era
  - AI WAN Solution

Network Automation

- Network Automation Overview
  - Network Programming and Automation
  - Network Automation Engineers
  - Network Automation Classification
- NETCONF Fundamentals
  - Network Management Technology Background
  - NETCONF Protocol
  - Modeling Language of YANG
- Telemetry Fundamentals and Practices
  - Introduction to Telemetry
  - Telemetry Technical Fundamentals
  - Telemetry Configuration and Practice
- Introduction to iMaster NCE-Campus RESTful APIs
  - REST and RESTful
  - HTTP Working Principles
  - iMaster NCE-Campus RESTful API Developer Guide

Intelligent Network O&M

- Traditional Network O&M
  - Overview of Network O&M
  - Routine Maintenance
  - Troubleshooting
- iMaster NCE-Campus Intelligent O&M
  - iMaster NCE-Campus Overview
  - System-Level O&M
  - MSP-Level O&M
  - Tenant-Level O&M

- iMaster NCE-CampusInsight Intelligent O&M
  - CampusInsight Overview
  - Basic Operations
  - Functions and Features
  - Experience View
- iMaster NCE-IP Intelligent O&M
  - iMaster NCE-IP Overview
  - Operations and Maintenance of Basic Apps
  - Operations and Maintenance of Value-Added Apps
  - Service Deployment
  - Troubleshooting
- Telecom Foundation Model Application—NetMaster
  - NetMaster Overview
  - Technical Basics of NetMaster
  - Capabilities of NetMaster

NOTE

The test content mentioned in this document provides a general test guide for candidates. Other content not mentioned in this document may also be used in the test.

Reference

Huawei Certification HCIE-Datacom V2.0 Training Materials

Recommended Training

Huawei Certification HCIE-Datacom V2.0 Training