Training: Huawei
HCIP-Datacom - Core Technology

TRAINING GOALS:

Huawei Certified ICT Professional-Datacom - Core Technology training and certificating senior engineers who possess advanced routing and switching knowledge and advanced skills in the datacom field.

Objectives

After completing the HCIP-Datacom - Core Technology training, you will be able to:

- Understand the entire process of forwarding data packets by network devices.
- Understand the working principles and configurations of OSPF, IS-IS, and BGP.
- Deploy route control and traffic path control.
- Understand the working principles of RSTP/MSTP.
- Understand the working principles of stacking technology.
- Understand the working principle of multicast and set up a multicast network.
- Configure ICMPv6, NDP, and IPv6 addresses.
- Master Huawei firewall technologies.
- Configure basic security features for network devices.
- Master the basic configurations for network reliability.
- Describe common network management protocols.
- Understand Huawei enterprise datacom solutions.

Target Audience

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

CONSPECT:

- IP Routing Basics
  - Introduction to Network Devices: Hardware modules of modular switches, Three planes of network devices, Packet processing on network devices.
  - IP Routing Basics: RIB and FIB, Route import scenario.

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- OSPF Core Knowledge
  - OSPF Basics: Introduction to dynamic routing protocols, Basic OSPF concepts, Process of establishing an OSPF neighbor relationship, Basic OSPF configuration
  - OSPF Route Calculation: Intra-area route calculation, Inter-area route calculation, External route calculation
  - OSPF Special Area and Other Features: Stub area and totally stub area, NSSA area and totally NSSA area, Inter-area route summarization and external route summarization, OSPF Features
- IS-IS Core Knowledge
  - IS-IS Principles and Configuration: Basic concepts of IS-IS, IS-IS working principle, Basic IS-IS configuration
- BGP Core Knowledge
  - BGP Basics: BGP overview, Basic concepts of BGP, Basic BGP configuration
  - BGP Path Attributes and RRs
  - BGP route selection
  - BGP EVPN Basics: MP-BGP, EVPN overview, Common EVPN routes, Typical EVPN application scenarios
- Routing and Traffic Control
  - Routing Policy and Route Control: Route matching tool, Routing policy tool, Route control cases
  - Traffic Filtering and Forwarding Path Control: Policy-based routing, MQC, Traffic filtering
- Switching Core Knowledge
  - RSTP Principles and Configuration: RSTP overview, Improvements of RSTP over STP, RSTP working process, Basic RSTP configurations
  - MSTP Principles and Configuration: MSTP overview, Basic concepts of MSTP, Working principles of MSTP, Basic MSTP configuration
  - Stack and CSS: Overview of Stack and CSS technologies, Stacking principles, CSS principles, Basic configuration
- Multicast Basics
  - IP Multicast Basics: Basic concepts of IP multicast, Multicast data forwarding principle
  - IGMP Principles and Configuration: IGMP working principle, Introduction to the IGMP feature
  - PIM Principles and Configuration: PIM basics, PIM-DM, PM-SM
- IPv6 Core Knowledge
  - IPv6 Overview: IPv6 overview, Introduction to IPv6 addresses
  - ICMPv6 and NDP: ICMPv6 overview, NDP overview, Router discovery, Duplicate address detection, Redirection
  - IPv6 address configuration: IPv6 address configuration mode, Stateless IPv6 address autoconfiguration, DHCPv6, Implementation of IPv6 address autoconfiguration
- Network Security Basics

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- Huawei Firewall Technology: Firewall overview, Basic concepts of firewalls, Basic firewall configuration
- Network Device Security Features: Security hardening policies for common devices, Network device security hardening deployment example
- VPN Technology Overview: VPN technology overview, Common VPN technologies
- Basic Concepts and Applications of VRF

- Network Reliability
  - BFD Principles and Configuration: BFD Overview, BFD working principle, BFD application scenarios, Basic BFD configurations
  - VRRP Principles and Configuration:VRRP overview, VRRP working principles, Typical VRRP application, Basic VRRP configuration
- Network Service and Management
  - DHCP Principles and Configuration: DHCP background, DHCP working principle and configuration, DHCP Relay working principle and configuration
  - Introduction to Network Management Protocols: Development of network management, Functional features of network management, Network management protocols, Application scenarios of network management
- Large-scale WLAN Architecture
  - Large-Scale WLAN Networking and Deployment: Overview of large-scale WLAN networking, VLAN pool, DHCP technology, Roaming technology, High reliability technology, Network Admission Control technology
- Network Solution
  - Enterprise Datacom Solution Overview: Campus, Data center , SDN-WAN, SD-WAN

REQUIREMENTS:

Be familiar with common operations of Huawei network devices. Have the knowledge and skills described in the HCIA-Datacom.

Difficulty level

CERTIFICATE:

The participants will obtain certificates signed by Huawei (course completion).

This course also helps you prepare for the Huawei HCIP-Datacom - Core Technology exam.

- Exam Code: H12-821
- Exam Type: Written examination

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- Exam Format: Single-answer Question,Multiple-answer Question,True or false,Short Response Item,Drag and Drop Item
- Time: 90min

Passing Score/Total Score: 600/1000Datacom certification focuses on the application of datacom technologies in industry scenarios. The core technology of HCIP-Datacom includes the general knowledge that must be mastered in all scenarios of the datacom industry. It is the basis for learning each sub-direction. Each sub-direction represents a network scenario. Trainees can select one or more sub-directions based on their interests and career development plans.

TRAINER:

Huawei Certified Trainer.

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