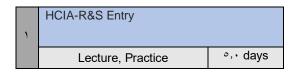
Routing and Switching Certification Training

HCIA-Routing&Switching Training

Training Path





Target Audience

Personnel who want to become data communication engineers

Personnel who want to obtain HCIA-R&S certification

Prerequisites

- •Be familiar with PC operations..
- Have a basic understanding of IT technologies and network knowledge..

Objectives

On completion of this program, the participants will be able to:

- Describe the basic principles of data communication and be competent for basic O&M of IP networks.
- Plan and design IP addresses.
- Performing Basic VRP Operations
- Describe the functions and working principles of the switching equipment.
- Set up an efficient switching network by configuring switching devices and running the STP/RSTP protocol.
- Describe the basic principles of routing and routing protocols. Configure RIP/OSPF to build an efficient enterprise routing network.
- Configure common services on enterprise networks, such as DHCP, FTP, and Telnet, so that enterprises can efficiently use and manage the network.
- Set up a small-scale enterprise network.
- Configure link aggregation, VLAN, and GVRP to enhance the performance of enterprise Layer two networks.
- Configure HDLC, PPP, PPPoE, or FR on the serial link to implement WAN interconnection.

- Performing NAT Configuration
- ●Configuring the Enterprise Network to Access the *G Network
- Configure ACL, AAA, and IPSec/GRE to provide security solutions for enterprise IP networks.
- Configure SNMP and eSight to manage enterprise networks in a unified manner.
- Build a network that meets enterprise service requirements.

Training Contents

HCIA-R&S Entry

- ●Basic Knowledge of TCP/IP
 - Basic Enterprise Network Architecture
 - Introduction to Transmission Media
 - Ethernet framing
 - IP addressing
 - ICMP protocol
 - ARP protocol
 - Transport layer protocol
 - Data forwarding Scenario
- Introduction to the VRP
 - VRP Foundation
 - Navigating the CLI
 - File System Navigation and Management
 - VRP Operating system Image management
- Introduction to Switching Technologies
 - Establishing a Single Switched Network
 - Spanning Tree Protocol
 - Rapid Spanning Tree Protocol
- Introduction to Routing Technologies
 - Basic Knowledge of IP Routing
 - IP Static Route
 - Distance Vector Routing with RIP
 - Link State Routing with OSPF
- Introduction to IP Services
 - DHCP Protocol Principles
 - FTP Protocol Principles
 - Telnet Protocol Principles

HCIA-R&S Intermediate

- Advanced switching technologies
 - Advanced Enterprise Network Solution Overview
 - Link aggregation
 - VLAN Principle
 - GARP and GVRP
 - VLAN Routing
 - Wireless LAN Overview
- Introduction to WAN Technologies
 - Principles and Configuration of HDLC and PPP
 - Frame Relay Principles
 - Principles and Configuration of PPPoE
- Introduction to Access Control
 - Establishing Enterprise RAN Solution
 - Network address translation
 - Access control list
 - AAA
 - Securing Data with IPSec VPN
 - Generic Routing Encapsulation
- Introduction to Network Management
 - Simple Network Manangement Protocol
 - eSight Network Management Solution
- ●Introduction to IPv^٦
 - Introducing IPv \ Networks
 - IPv¹ Routing Technologies
 - Ipv Application Service DHCPv I

Duration

\ working days

Class Size

Max 11