

Training: Huawei  
HCNP-R&S-IERS Implementing Enterprise Routing Network

FORM OF TRAINING	MATERIALS	PRICE	DURATION
Traditional	Hardcopy	2250 USD	5 days
Traditional	CTAB Tablet	2380 USD	5 days

### LOCATIONS

Krakow - 5 Tatarska Street, II floor, hours: 9:00 am - 4:00 pm

Warsaw - 17 Bielska Street, hours: 9:00 am - 4:00 pm

### TRAINING GOALS:

With HCNP-R&S certification, you demonstrate a comprehensive and thorough understanding of small and medium-sized networks, including general network technologies, and the ability to design small and medium-sized networks independently and implement the designs using Huawei routing and switching devices.

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

- Configure OSPF
- Configure ISIS
- Configure BGP
- Describe the principle of IGMP, PIM-DM/SM
- Describe the principle of Eth-Trunk, MUX VLAN, Port Isolation, RSTP and MSTP
- Configure Eth-Trunk, MUX VLAN, Port Isolation, RSTP and MSTP

Target Audience:

- Those who hope to become a network professional
- Those who hope to obtain HCNP-R&S certificate

### CONSPECT:

- OSPF
  - RIP problems in large network
  - OSPF characteristics
  - Network types supported by OSPF

- The process of establishing OSPF neighbor relationships
- The concepts and functions of OSPF DR and BDR
- The Router-LSA contents and functions
- The Network-LSA contents and functions
- The shortest path first (SPF) algorithm
- The inter-area route transmission process
- Prevent inter-area routing loops
- Application scenarios of OSPF virtual links
- Configure virtual links
- The functions of AS-External-LSAs and ASBR-Summary-LSAs
- Calculate OSPF external routes
- How suboptimal external routes are generated
- The OSPF route summarization principle
- The OSPF update mechanism
- The OSPF authentication mechanism
- ISIS
  - IS-IS principles
  - The differences between IS-IS and OSPF
  - Configure IS-IS
- BGP
  - Working Principle of BGP
  - BGP attributes and applications
  - BGP route summarization applications
- IP Multicast Basics
  - Characteristics of point-to-multipoint applications
  - The basic multicast architecture
  - The structure of multicast addresses
- IGMP
  - IGMP working mechanisms and configurations
  - The differences between different IGMP versions
  - The mechanism of IGMP snooping
- PIM
  - Multicast forwarding requirements
  - PIM-DM working mechanisms and configurations
  - PIM-SM working mechanisms and configurations
- Route Control

- Control traffic reachability
- Adjust network traffic paths
- The problems caused by route import and solutions
- Eth-Trunk
  - The Eth-Trunk principle
  - The Eth-Trunk configuration
- Advanced Features of Switches
  - The application scenario and configuration of MUX VLAN
  - The application scenario and configuration of port isolation
  - The application scenario and configuration of port security
- RSTP
  - The working principle of RSTP
  - Similarities and differences between RSTP and STP
  - The RSTP configuration in typical application scenarios
- MSTP
  - Limitations of a single spanning tree
  - The MSTP working mechanism
  - Configure MSTP

## REQUIREMENTS:

HCNA certification or the similar knowledge.

## Difficulty level



## CERTIFICATE:

The participants will obtain certificates signed by Huawei.

This course prepares you for the HCNP Huawei Certified Network Professional certification for Routing and Switching (R&S) specialization. HCNP certification exams are offered worldwide through the Prometric test centers. More information about Huawei certification program and available specializations you can find on the

<http://support.huawei.com/learning/NavigationAction!createNavi?navId=CERTIFICATE&lang=en>

## TRAINER:

Huawei Certified Trainer.