

Implementing Enterprise Routing and Switching Network (HCIP-R&S-IERS)

- **Formato do curso:** Presencial
- **Localidade:** Lisboa
- **Data:** 07 Out. 2019 a 11 Out. 2019
- **Preço:** 1500€
- **Horário:** Laboral - das 09h00 às 17h00
- **Duração:** 35 horas

This course is one of the three recommended trainings that prepare you for the HCIP-Routing & Switching certification.

With **HCIP-Routing & Switching 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. With engineers who are HCIP-Routing & Switching certified, enterprises are able to construct complete small and medium-sized networks and integrate voice, wireless, cloud, security, and storage technologies into their networks in order to support a variety of applications while providing enhanced security, availability, and reliability.

The other 2 recommended courses for this certification are: Improving Enterprise Network Performance (HCIP-R&S-IENP) and Implementing Enterprise Network Engineering Project (HCIP-R&S-IEEP).

Destinatários

- Those who hope to become a network professional
- Those who hope to obtain HCIP-Routing & Switching V2.0 certificate

Pré-requisitos

- [HCIA](#) certification or the similar knowledge
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Objetivos

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
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Programa

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