



Huawei Certified ICT Professional Data Centre – Facility Deployment

Duration	Delivery Method	Level
5 days	Online / Instructor Led	Professional

Huawei HCIP DCF certification course is positioned to enable construction capabilities for installation, commissioning, troubleshooting of data centre facilities.

With HCIP-Data Centre Facility Deployment certification, you demonstrate skills of installation, commissioning and troubleshooting for data centre facility. Meanwhile, you have the qualification of Huawei data centre energy product delivery and maintenance.

With engineers who are HCIP-Data Centre Facility Deployment certified, enterprises are able to do the installation, commissioning and troubleshooting for data centre facility.

The HCIP-Data Centre Facility Deployment V2.0 Certification Exam covers: HCIP-Data Centre Facility Deployment V2.0 mainly focuses on product technical features, installation and deployment, and parameter configuration, the product series includes the following products: Huawei modular data centre Fusion Module series products, Huawei UPS and precision PDC series products, Huawei data centre energy storage products, Huawei data centre smart cooling products, and Huawei data centre DCIM system products.

Candidates need to be familiar with Huawei modular data centre solution, power distribution system solution, cooling system solution, and monitoring system solution.

Audience Profile

HCIP-Data Centre Facility Deployment certification is positioned to enable construction capabilities for installation, commissioning, troubleshooting of data centre facility.

Prerequisite

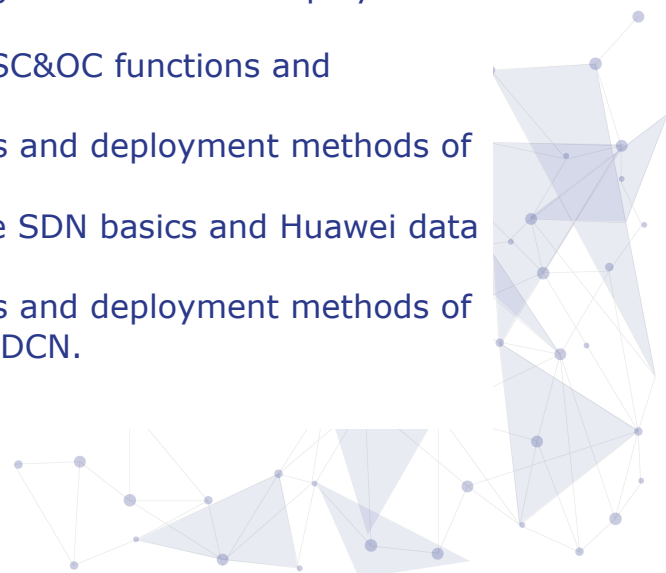
Before attending this course, delegates must:



- At least 2-year Data Centre Facility working experience .
- Passed HCIA-DCF

What you will learn

- Understand the cloud data centre architecture.
- Understand Huawei servers and storage physical products, such as RH, KunLun, E9000, and OceanStor.
- Master the common technologies and routine O&M of servers and storage devices.
- Have a good command of the technical principles of switch stacking and the configuration methods on CE series switches.
- Master the M-LAG technical principles and how to configure the M-LAG on CE series switches.
- Have a good command of VS technical principles and configuration methods on CE series switches.
- Have a good command of FCoE technology principles and configuration methods on CE series switches.
- Have a good command of VXLAN technology principles and configuration methods on CE series switches.
- Have a good command of MP-BGPEVPN technical principles and configuration methods on CE series switches.
- Understand the major network security issues and design principles of the cloud data centre.
- Have a good command of the deployment of Huawei cloud data centre network security solution.
- Understand the networking architecture of the firewall, IPS/IDS, and Anti-DDOS.
- Understand the overall architecture and component functions of the converged resource pool of the cloud data centre.
- Have a good command of the functions and deployment methods of FusionSphereOpenStack (including OM) components.
- Have a good command of FusionCompute functions and deployment methods.
- Have a good command of FusionStorage functions and deployment methods.
- Have a good command of ManageOneSC&OC functions and deployment methods.
- Have a good command of the functions and deployment methods of Huawei virtualisation backup eBackup.
- Have general knowledge of data centre SDN basics and Huawei data centre SDN solutions.
- Have a good command of the functions and deployment methods of Huawei SDN controller Agile Controller-DCN.



- Understand the eSight functions and deployment methods of Huawei network management system.

Course Objective

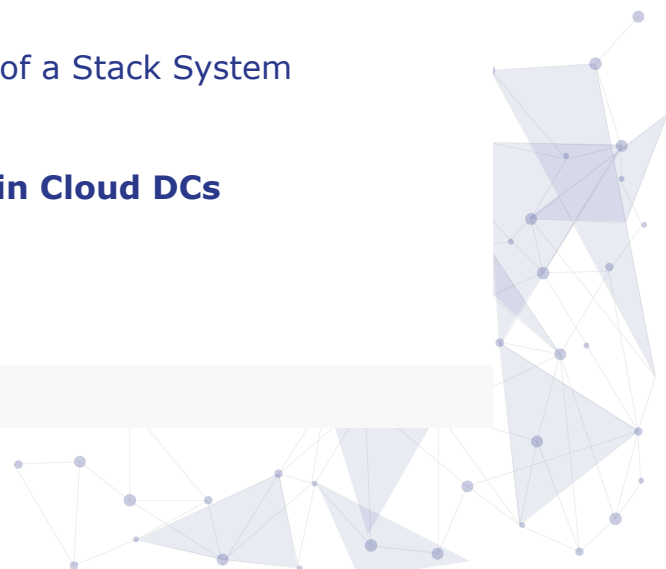
On completion of this program, the participants will be able to:

- Configure OSPF
- Configure BGP
- Configure Route Selection Tools
- Configure IGMP, PIM-SM/DM
- Describe the principle of VLAN
- Configure VLAN, Mux VLAN and GVRP
- Configure STP, RSTP and MSTP
- Describe the basic principle of network security
- Configure the functions and features of USG series firewall
- Describe Huawei IP QoS end-to-end process
- Configure end-to-end IP QoS
- Build and configure simulation of enterprise network

Course Outline

It infrastructure deployment and O&M

- **Overview of Cloud DC IT Infrastructure**
 - Cloud DC Architecture
 - Servers
 - Storage
 - Switches
- **Stacking Principles and Deployment in Cloud DCs**
 - Stacking Technology Overview
 - Stacking Technology Implementation
 - Stacking Technology Application
 - Data Forwarding and Fault Switchover of a Stack System
 - Basic Configuration of a Stack System
- **M-LAG Principles and Deployment in Cloud DCs**
 - Background
 - Principles
 - Application Scenarios
 - Configuration Examples



- **VS Principles and Deployment in Cloud DCs**
- VS Overview
- Technical Details of VS
- Operation and Deployment of VS
- Typical Applications of VS

- **Cloud Data Centre Advanced Network Features Practice**
- Cloud Data Centre Advanced Network Features Practice

- **Underlay Network Deployment in Cloud DCs**
- SDN Interface Protocols and Features
- Eth-Trunk
- Stacking
- M-LAG
- BGP
- Underlay Networking Cases

- **Cloud Data Centre Underlay Network Deployment Practice**
- Cloud Data Centre Underlay Network Deployment Practice

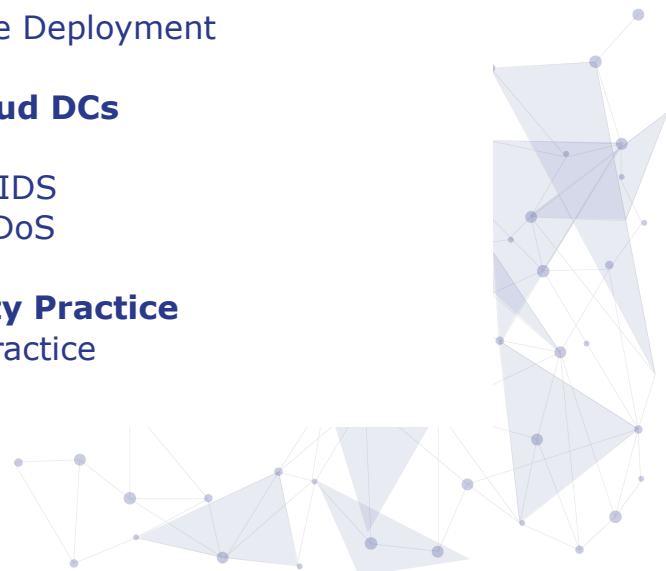
- **VXLAN & EVPN Principles and Deployment in Cloud DCs**
- Requirements and Challenges of Cloud DCs
- Basic Principles of VXLAN
- Common Networking of VXLAN
- Introduction to BGP-EVPN
- VXLAN-based EVPN Deployment in a DC
- VXLAN-based EVPN Deployment Across DCs
- Configuration and Deployment Optimisation
- Success Cases

- **Cloud Data Centre VXLAN & EVPN Practice**
- Cloud Data Centre VXLAN & EVPN Practice

- **Overview of Cyber Security in Cloud DCs**
- Classification of Cyber Security Issues
- Suggestions on Cyber Security Defence Deployment

- **Cyber Security Deployment for Cloud DCs**
- Firewall Networking and Deployment
- Networking and Deployment of IPS or IDS
- Networking and Deployment of Anti-DDoS

- **Cloud Data Centre Network Security Practice**
- Cloud Data Centre Network Security Practice



- **Principles and Deployment of Converged Storage in Cloud DCs**
- SAN Principles
- NAS Principles
- RAID Principles
- Basic Features of Converged Storage
- Deployment and Management of Converged Storage

- **Cloud Data Centre Fusion Storage Practice**
- Cloud Data Centre Fusion Storage Practice

- **Deployment and O&M of Huawei General-Purpose Servers**
- Overview of Huawei General-Purpose Servers
- Configuration and Deployment of Huawei Servers
- Routine Maintenance of Huawei General-Purpose Servers
- Huawei Server Tools

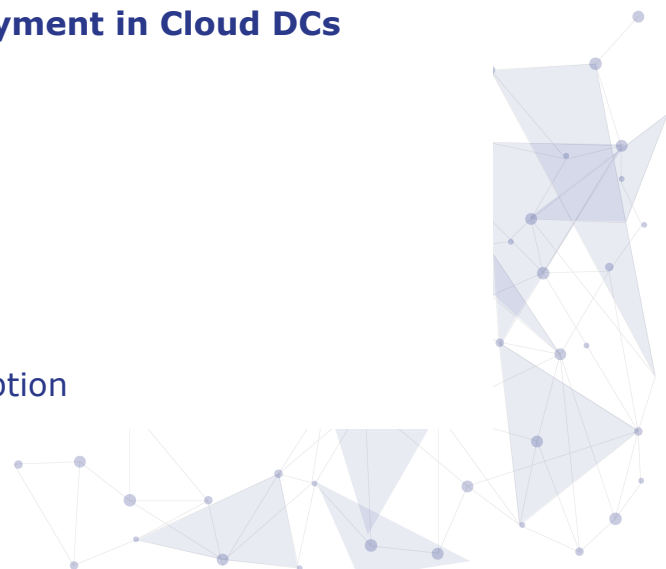
- **Deployment and O&M of Huawei KunLun Servers**
- Positioning and Application of Huawei Kunlun Servers
- Hardware Architecture and Features of Huawei Kunlun Servers
- Initial Configuration of KunLun Series Servers

- **Deployment and O&M of Huawei Blade Servers**
- Positioning and Application Scenarios of E9000
- E9000 Overview
- E9000 Deployment and Management

- **Huawei RH Series Server Batch Operation Tool Practice**
- Huawei RH Series Server Batch Operation Tool Practice

- **Cloud Data Centre Deployment and O&M**
- Overview of Converged Resource Pools in Cloud DCs
- Overview and Development of DCs
- Architecture of Converged Resource Pools in Cloud DCs
- Software of Converged Resource Pools in Cloud DCs

- **OpenStack Architecture and Deployment in Cloud DCs**
- OpenStack Overview
- OpenStack Components – Nova
- OpenStack Components – Cinder
- OpenStack Components – Swift
- OpenStack Components – Glance
- OpenStack Components – Keystone
- FusionSphere Concept
- Released Versions of FusionSphere
- FusionSphere Components and Description



- FusionSphere Compatibility Specifications
 - FusionSphere Deployment in Cloud DCs
 - FusionSphere DR Solution
 - **OpenStack Component Deployment in Cloud DCs**
 - FusionSphere Overview
 - Installation of FusionSphere OpenStack
 - Deployment of FusionSphere OpenStack Services
 - Initial Configuration of FusionSphere OpenStack
 - Installation and Configuration of FusionSphere OpenStack OM
 - **Cloud Data Centre OpenStack Deployment and Maintenance**
 - Cloud Data Centre OpenStack Deployment and Maintenance
 - **FusionCompute Principles and Deployment in Cloud DCs**
 - FusionCompute Architecture
 - FusionCompute Features
 - FusionCompute Deployment
 - Connecting to FusionSphere OpenStack
 - Initial Configuration of FusionCompute
 - Connecting FusionCompute to FusionSphere OpenStack
 - FusionCompute O&M
 - **Principles and Architecture of FusionStorage in Cloud DCs**
 - FusionStorage Overview
 - FusionStorage Functions
 - Logical Architecture of FusionStorage
 - Software Installation of FusionStorage
 - FusionStorage Configuration
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- **Cloud Data Centre FusionCompute Connect to Storage Resource Practice**
 - Cloud Data Centre FusionCompute Connect to Storage Resource Practice
 - **Principles and Architecture of ManageOne in Cloud DCs**
 - ManageOne Solution Architecture
 - ServiceCentre Management
 - OperationCentre Management
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- **Cloud Data Centre ManageOne SC Deployment Practice**
 - Cloud Data Centre ManageOne SC Deployment Practice
 - **Principles and Architecture of VDCs in Cloud DCs**



- VDC Service Features
- VPC Service Features
- Security Group Service Features
- Cloud Host Service Features
- Physical Host Service Features
- Cloud Disk Service Features

- **Principles, Deployment, and O&M of eBackup in Cloud DCs**
- eBackup Overview
- eBackup Installation and Deployment
- eBackup Backup and Restoration

- **Cloud Data Centre VDCVPC Operation Practice**
- Cloud Data Centre VDCVPC Operation Practice

- **Principles and Deployment of SDN Controllers in Cloud DCs**
- SDN Overview
- Agile Controller-DCN Architecture
- Controller Networking Mode
- Controller Deployment Process

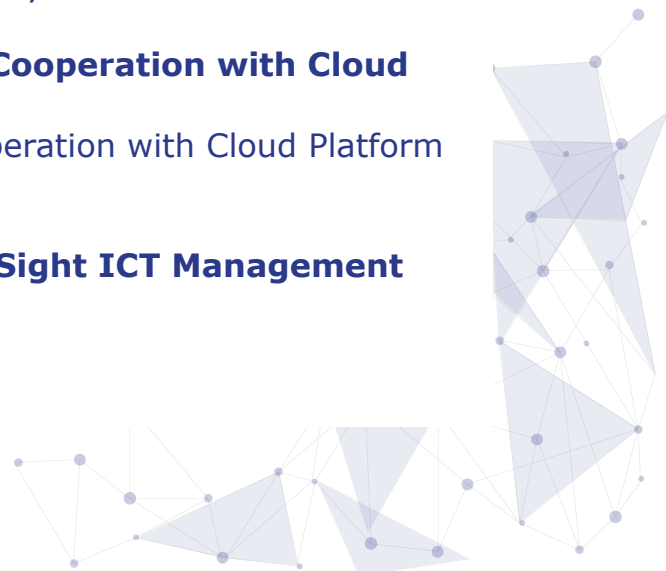
- **Virtual Resource Backup eBackup Deployment and Maintenance Practice**
- Virtual Resource Backup eBackup Deployment and Maintenance Practice

- **Service Principles of SDN Controllers in Cloud DCs**
- DC SDN Network Basics
- Typical Application Scenarios
- Service Deployment Process
- Service Provisioning Process
- Typical Deployment Solutions

- **Cloud Data Centre SDN Controller Deployment Practice**
- Cloud Data Centre SDN Controller Deployment Practice

- **Cloud Data Centre SDN Controller Cooperation with Cloud Platform Practice**
- Cloud Data Centre SDN Controller Cooperation with Cloud Platform Practice

- **Principles and Deployment of the eSight ICT Management System in Cloud DCs**
- eSight Positioning
- Main eSight Services



- eSight System Architecture
- Typical Applications of eSight
- Networking Modes of eSight
- Technical Specifications of eSight
- Preparing for eSight Installation
- eSight Installation Process

- **Cloud Data Centre ManageOne OC Deployment Practice**
- Cloud Data Centre ManageOne OC Deployment Practice

