

Huawei Certification Brochure

A Brighter Future with Huawei Certification

2021 Version 3.0

HUAWEI TECHNOLOGIES CO., LTD.

HUAWEI

HUAWEI CERTIFICATION

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Huawei Certification

1 Who is Huawei

Founded in 1987, Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. We have more than 194,000 employees, and we operate in more than 170 countries and regions, serving more than three billion people around the world.

Our vision and mission is to bring digital to every person, home and organization for a fully connected, intelligent world. To this end, we will drive ubiquitous connectivity and promote equal access to networks; bring cloud and artificial intelligence to all four corners of the earth to provide superior computing power where you need it, when you need it; build digital platforms to help all industries and organizations become more agile, efficient, and dynamic; redefine user experience with AI, making it more personalized for people in all aspects of their life, whether they're at home, in the office, or on the go.

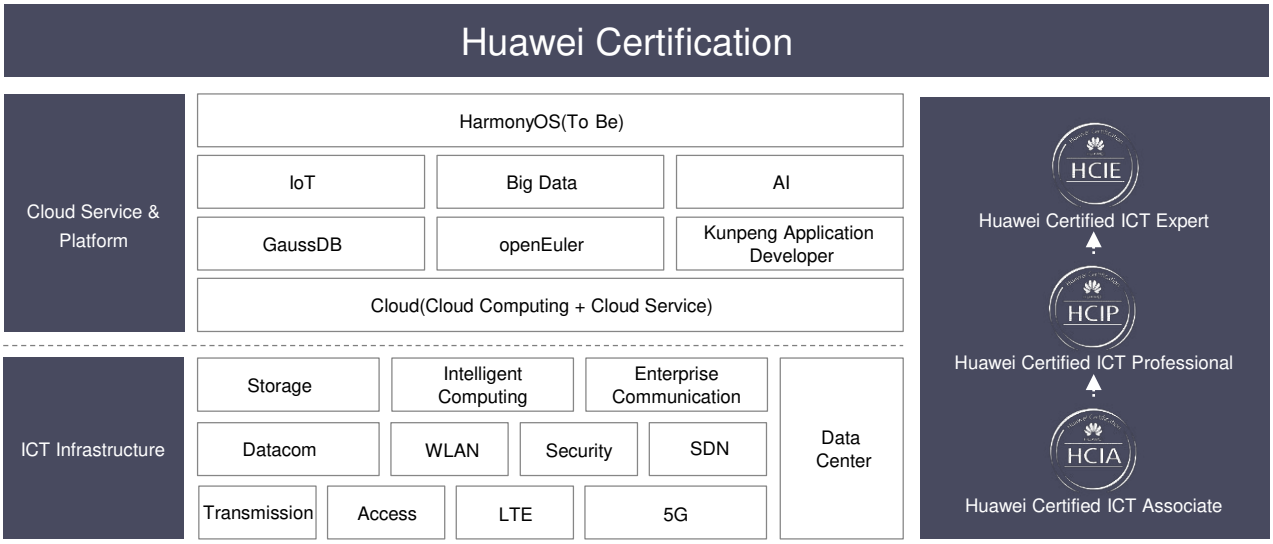
2 About Huawei Certification Service

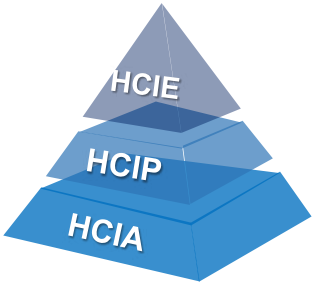
Huawei Certification is in line with the company's "Platform + Ecosystem" development strategy, and its new ICT infrastructure featuring "Cloud-Pipe-Device" synergy. It evolves to fit with the latest trends of ICT convergence.

Huawei Certification consists of two categories: ICT Infrastructure, Cloud Service & Platform.

Huawei offers three levels of certification: Huawei Certified ICT Associate (HCIA), Huawei Certified ICT Professional (HCIP), and Huawei Certified ICT Expert (HCIE).

With its leading talent development system and certification standards, Huawei is committed to developing new ICT professionals in the digital era and building a healthy ICT talent ecosystem.





- **Huawei Certified ICT Expert (HCIE),** Huawei's highest level of ICT technical certification, is awarded to people who demonstrate especially strong expertise in ICT and rich experience in practice.
- **Huawei Certified ICT Professional (HCIP),** is awarded to senior engineers with rich ICT knowledge and strong experience in an ICT technical field.
- **Huawei Certified ICT Associate (HCIA)** is awarded to engineers who can install, configure, and run ICT devices, and rectify faults in a technical field.

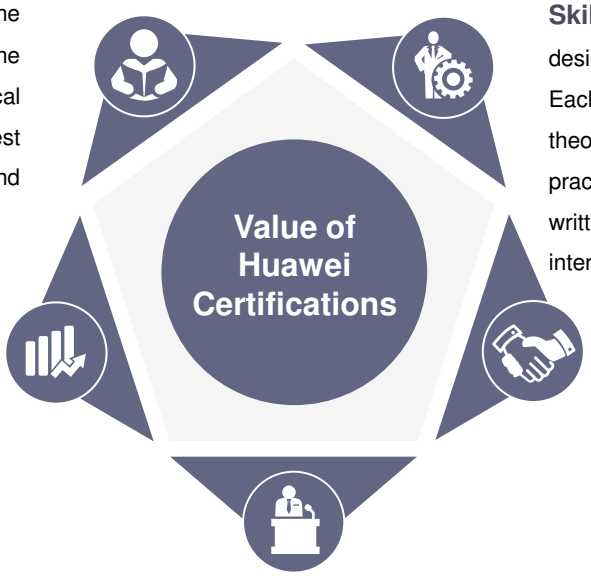
3 About Huawei Certification

ICT Infrastructure category focuses on both the hardware and software components of ICT infrastructure and provides certifications in 12 technical fields: Storage, Intelligent Computing, Enterprise Communication, Data Center, Datacom, WLAN, Security, SDN, Transmission, Access, LTE, and 5G. Those successful in attaining ICT Infrastructure certification will be able to demonstrate knowledge of ICT infrastructure planning, construction, and maintenance.

Cloud Service & Platform category focuses on new ICT such as AI, IoT, and Cloud and provides certifications in 8 technical fields: HarmonyOS, IoT, Big Data, AI, GaussDB, openEuler, Kunpeng Application Developer, and Cloud. Achieving the Platform and Service Certification signifies that the certificate holder is capable of integrating business, technologies, and applications. Furthermore, they will be able to build and operate cloud platforms and architectures in addition to developing new technical applications based on cloud platforms.

4 Why Participate in the Huawei Certification Program

Knowledge: Huawei provides the only certification system in the industry that covers all ICT technical fields. Trainees will learn the latest technology development trends and gain the latest technical knowledge.



Skills: Huawei certifications are designed around different roles. Each certification includes both theoretical knowledge and practical skills, and is verified by written tests, experiments, and interviews.

Opportunities: Trainees will have technical knowledge and practical skills in interrelated domains, which will lead to more opportunities in career choice and advancement.

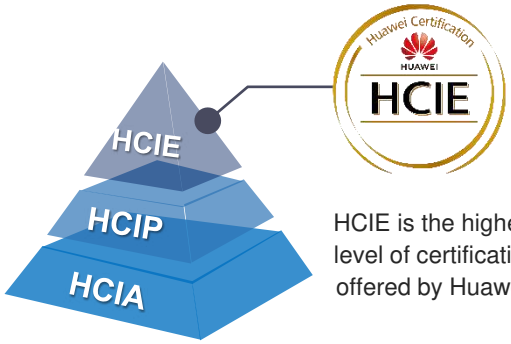
Trust: Certifications are proof that you have the necessary knowledge and skills, and help earn the trust of employers, customers, and colleagues.

Self-confidence: Trainees will gain confidence in their capabilities when passing certifications, and more confidence increases the likelihood of future success.

5 About HCIE (Huawei Certified ICT Expert)

5.1 HCIE—Huawei Certified ICT Expert

HCIE-Intelligent Computing	Released
HCIE-Big Data-Data Mining	Released
HCIE-Cloud Service Solutions Architect	Released
HCIE-Cloud Computing	Released
HCIE-Data Center	Released
HCIE-Data Center Facility Design	Released
HCIE-Enterprise Communication	Released
HCIE-Storage	Released
HCIE-Routing & Switching	Released
HCIE-Carrier IP	Released



HCIE is the highest level of certification offered by Huawei.

5.2 Benefits of HCIE Certification



Business Organization

- Talent development standards
- Enhanced solution ability
- Better customer service quality
- Higher operating efficiency



ICT Professional

- Personal ability enhancement
- Enhanced expert image
- Better career development
- Returns for efforts

5.3 Abilities That Make an HCIE

Theoretic Knowledge	Hands-on Ability	Overall Quality
• Master general technologies • Learn advanced ICT knowledge • Possess systematic knowledge that matches the growth of enterprises.	• Apply ICT skills to construct, operate, and maintain enterprise networks and IT systems to support the business growth of enterprises.	• Possess well-developed overall quality that consists of rich work experience and skills, logical thinking, communication skills, and risk handling abilities.

6 Benefits of Huawei Certification

Consolidate your technical foundation	Keep up with the trends	Improve employment competitiveness
Huawei certification combines theory with practice. It provides a solid technical foundation and comprehensively assesses the ICT specialists' relevant knowledge base.	Huawei certification incorporates cutting-edge ICT trends, keeping you up-to-date on emerging areas like Artificial Intelligence (AI)and Internet of Things(IoT).	Receiving Huawei Certification means you have the ICT expertise the industry needs. It will improve your employment competitiveness and advance your value within Huawei's ecosystem.

7 Obtaining Huawei Certificates

To obtain an HCIA certificate, you need to	• Pass the HCIA exams. • Exam Location**:** Pearson VUE exam center • The validity of the certificate: 3 years
To obtain an HCIP certificate, you need to	• Pass the HCIP exams. • Exam Location**:** Pearson VUE exam center • The validity of the certificate: 3 years
To obtain an HCIE certificate, you need to	• Pass HCIE three exams within 18 months • The validity of the Results: 2 years • Exam Location**:** Pearson VUE exam center(Written)&HCIE test center(Lab & Interview)

Written ❯❯❯	Lab ❯❯❯	Interview
Pass HCIE Written exams. **The validity of the Results:** 18 Months **Exam Location:** Pearson VUE Exam Center	Take the Lab exam in 18 months. **The validity of the Results:** 90 Natural Days **Exam Location:** HCIE Test Center	Take the Interview in 90 natural days. **The validity of the Results:** 2 years **Exam Location:** HCIE Test Center

Certificate Application Process

Pass the HCIA, HCIP, HCIE certification exams → Apply for the certificate ↓ One working day after passing the exam, apply for the corresponding certificate on the Huawei Talent website → Query the certificate

Download Certificate, Click here

8 About Pearson VUE

Huawei cooperates with Pearson VUE, the world's largest third-party test institution, to provide professional, fair, and global exam services.

About Pearson VUE

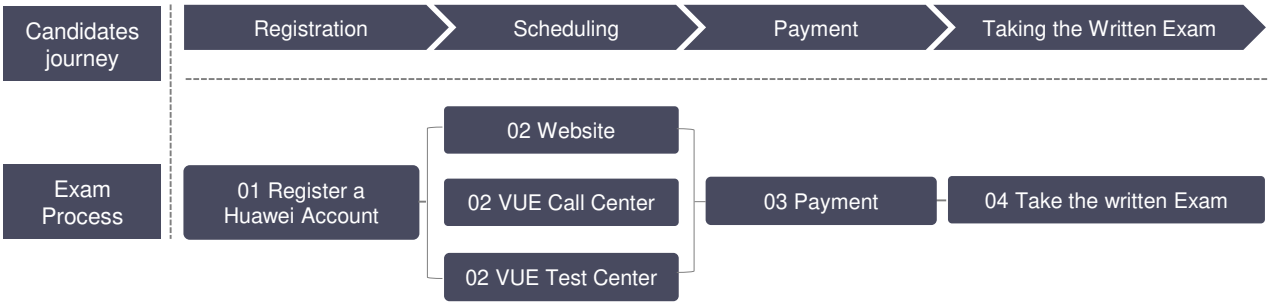
- Pearson VUE, a global leader in computer-based tests, has provided test services for over 450 organizations and deployed test networks covering more than 4000 test centers in 180 countries.
- As a part of Huawei's certification program, an online exam assesses your knowledge, capabilities, and skills related to actual ICT applications.

Execute the highest international standards

Standard	Service Type	Description
ISO 22301:2012	The International Standard for Business Continuity Management	This certification provides customers and stakeholders with the confidence that the continuity of service delivery is taken very seriously and that Pearson VUE has robust plans in place should the unexpected occur.
ISO 9001	The International Standard for Quality Management	Certification to ISO 9001 provides Pearson VUE's customers with the assurance that their needs are at the center of the organization's business processes and that their feedback will be sought in order to continually improve service delivery.
ISO 27001	The International Standard for Information Security Management	Certification to ISO 27001 shows Pearson VUE's customers that this responsibility is taken very seriously and that the mechanisms are in place to protect the confidentiality, integrity and availability of such information.
PCI-DSS	The security standard for payment card data security	The PCI Security Standards is a robust and comprehensive standard to enhance payment card data security. It provides a framework of specifications, tools, measurements and support resources that has helped Pearson VUE to ensure the safe handling of cardholder information at every step through the organization's corporate security strategy and IT infrastructure.

9 Huawei Certification Exam Guide in Pearson VUE

9.1 Overview of Huawei Certification Written Exam Guide



9.2 Taking Huawei Certification Exams

9.2.1 / Register and Schedule Exams

You must use your verified Huawei account to schedule an exam. This can be done three ways.

- Pearson VUE website: Click Login on this main page.
- Pearson VUE Customer Service Center: Contact customer service.
- Test Centers: Visit your nearest Pearson VUE test center.

Pearson VUE exam Guide

【Note】

When scheduling a Huawei certification exam through Pearson VUE for the first time, you must log in to the Pearson VUE website with your Huawei account and provide the required personal information.

For further details about registration and scheduling, please visit the Huawei Certification Written Test Guide.

9.2.2 / Pay Exam Fee

You can pay exam fees in the following ways:

- By exam voucher (for Website, Customer Service Center, and Test Center Scheduling)
- By credit card (for Website and Customer Service Center Scheduling)
- By cash (for Test Center scheduling)

9.2.3 / Review Testing Policies

Exam rescheduling/cancellation: Exams must be rescheduled or canceled at least 24 hours before the scheduled start time. Exam fees cannot be refunded if you fail to reschedule or cancel less than 24 hours in advance, or if you fail to appear for the exam by the scheduled start time. You can reschedule or cancel an appointment by:

- Visiting the Pearson VUE website: Click Login on this main page.
- Contacting the Pearson VUE Customer Service Center.
- Visiting your nearest Pearson VUE test center.

Retake Policy: Retake exams can only be scheduled at least 7 calendar days after a failed exam, or 30 calendar days after a passed exam.

For more details about our exam policies, visit Huawei Certification Written Test Guide.

9.2.4 / Take Exam in a Test Center

To take an exam, please comply with the rules and process.

- Arrive at your designated test center at least 15 minutes before your scheduled appointment time. This time is needed to complete the necessary sign-in procedures. If you are more than 15 minutes late to an exam, you may be refused admission and your exams fees will not be refunded.
- Bring two valid photo identity documents (photocopies are not accepted). For more information, click Pearson VUE Identity Documents Policy.
- Personal items are not allowed in the testing rooms. This includes but is not limited to all bags, books not authorized by the sponsor, notes, phones, pagers, watches, and wallets.

For more information about the exam process and specifications, please visit Pearson VUE Exam Process.

For any questions or difficulties regarding the examination service, please contact Pearson VUE Customer Service Center.

10 Taking HCIE Lab Exams and Interviews at Huawei Test Centers

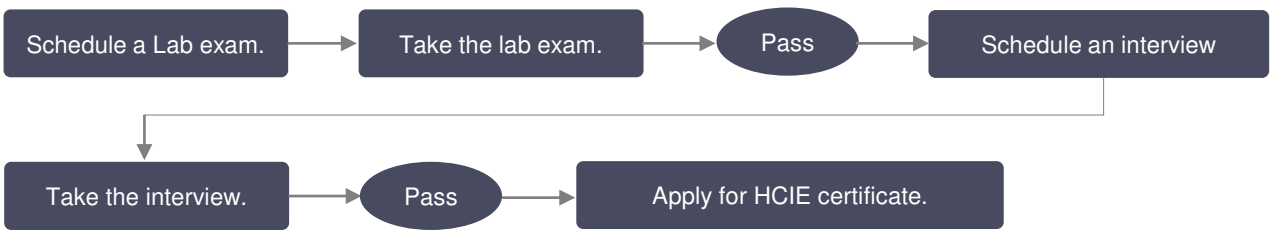
HCIE candidates need to take lab exam and interview at specified Huawei HCIE Test Centers.

10.1 Global Distribution of Huawei HCIE Lab + Interview Test Centers



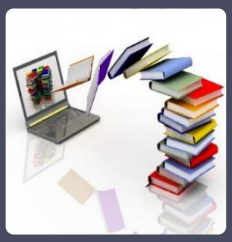
Country	China				Russia	Netherlands
City	Beijing	Shenzhen	Chengdu	Hangzhou	Moscow	Amsterdam
Country	India	Pakistan	UAE	Saudi Arabia	Thailand	Malaysia
City	New Delhi	Islamabad	Dubai	Riyadh	Bangkok	Kuala Lumpur
Country	South Africa	Australia	Mexico	Brazil		
City	Johannesburg	Sydney	Mexico City	Brasilia		

10.2 HCIE Lab Exam and Interview Processes



11 Getting Prepared for Huawei Certification

Obtain the materials



Huawei talent online platform offers a wealth of resources for all candidates, Click here.

Related learning resources for Huawei certifications include: electronic learning materials, experimental manuals, online learning videos, simulated test questions, etc.

Take the training



You can either take online training programs or receive onsite training delivered by Huawei Authorized Learning Partners(HALP).

Search HALP, click here

Perform a self-assessment



Mock Exams

Huawei provides mock exam for Huawei certifications, including written and lab exams to help you assess your skills.

12 Using Huawei Training Tools and Platforms



eLab

eLab is an online platform that provides related laboratory environments for Huawei products and solutions, as well as career and professional certification. Users can reserve and access eLab service over the Internet and perform hands-on exercises and drilling in laboratory environments to practice the skills they have learnt.



e-Learning

e-Learning is a scenario- and role-oriented self-service learning platform for enterprise customers, Huawei partners, and ICT professionals. The e-Learning platform provides rich functions, including online courses and online exams that allow access to interactive and personalized learning services anytime anywhere.



Storage Product Networking Assistant

Networking Assistant helps engineers perform tasks such as basic network planning and system capacity expansion using unified storage and Big Data devices. It can also provide personalized recommendations to meet special requirements. Supported products include the OceanStor V3 series, OceanStor 8500, OceanStor 9000, and OceanStor N18000.



Storage Demo

Storage Demo is a Huawei proprietary tool that helps Huawei channel partners, Authorized Service Partners (ASPs), and engineers learn how to operate and manage Huawei storage devices, including the OceanStor V3 series, OceanStor 18000 series, OceanStor 9000, and OceanStor Replication Director.



Dorado V3

Dorado V3 storage simulator helps ICT practitioners master Huawei flash storage. Supports advanced features such as IPSAN data read/write function, snapshot, remote replication, HyperMetro disaster recovery, data migration, and deduplication and compression.

13 More About the Huawei Certification Program

A Huawei Talent Online Website

Huawei Talent Online website offers ICT practitioners access to information about Huawei Certification news, activities, and markets based on specific business scenarios and roles. On the website, trainees can also query training and course availability, search for authorized training institutions, register for training and exams, obtain Learning Materials, complete online coursework and exams, fill out applications, query certificates, and make online reservation for experiments.

Visit Huawei talent online website, chick here

B Email

Certification Email: certification@huawei.com

Trainees can email certification@huawei.com to apply for certificates and get answers to any questions about Huawei Certification learning, training, and exams.

C Huawei Certification Forum

The Huawei Certification forum is a platform for technical exchanges for people interested in Huawei certification services, such as technical experts, field engineers, students, and examinees. Huawei will also periodically release HCIE updates and Learning Materials on the forum to aid HCIE certification applicants with their studies.

Huawei certification forum, click here

Huawei Certification Forum

D Huawei Certification on Facebook

Huawei Certification on Facebook gives ICT practitioners Huawei Certification updates, access to Learning Materials, and an easy way to share exam preparation and learning experiences.

Facebook

Huawei Certification Roadmap and Information on Certification Subjects

There is no mandatory requirement for the certificate.
It is recommended that you follow the roadmap for learning and certification.

	Associate	Professional	Expert
Cloud Service & Platform			
HarmonyOS	/	/	/
IoT	**HCIA-IoT** H12-111 exam	**HCIP-IoT Developer** H52-111	/
Big Data	**HCIA-Big Data** H13-711 exam	**HCIP-Big Data Developer** H13-723 exam	**HCIE-Big Data-Data Mining** H13-731(Written) & H13-732(Lab) & H13-733(Interview)
AI	**HCIA-AI** H13-311 exam	**HCIP-AI-EI Developer** H13-321 exam	/
GaussDB	/	/	/
openEuler	/	/	/
Kunpeng Application Developer	/	/	/
Cloud	**HCIA-Cloud Computing** H13-511 exam **HCIA-Cloud Service** H13-811 exam	**HCIP-Cloud Computing** H13-527 exam **HCIP-Cloud Computing-Container** H13-526 exam **HCIP-Cloud Computing-OpenStack** H13-525 exam **HCIP-Cloud Service Solutions Architect** H13-821 exam	**HCIE-Cloud Computing** H13-531(Written)& H13-532(Lab)& H13-533(Interview) **HCIE-Cloud Service Solutions Architect** H13-831(Written)& H13-832(Lab)& H13-833(Interview)
ICT Infrastructure			
Storage	**HCIA-Storage** H13-611 exam	**HCIP-Storage** H13-624 exam	**HCIE-Storage** H13-629(Written) & H13-630(Lab) & H13-631(Interview)
Intelligent Computing	**HCIA-Intelligent Computing** H13-211 exam	**HCIP-Intelligent Computing** H13-221 exam	**HCIE-Intelligent Computing** H13-231(Written) & H13-232(Lab) & H13-233(Interview)
Enterprise Communication	**HCIA-Video Conference** H11-851 exam **HCIA-Unified Communication** H11-811 exam	**HCIP-Video Conference** H11-861 exam **HCIP-Unified Communication** H11-828 exam	**HCIE-Enterprise Communication** H11-879(Written) & H11-880(Lab) & H11-881(Interview)

Data Center	**HCIA-Data Center** H13-411 exam **HCIA-Data Center Facility** H12-411 exam	**HCIP-Data Center** H13-421 exam & H13-422 exam **HCIP-Data Center Facility Deployment** H12-421 exam	**HCIE-Data Center** H13-431(Written) & H13-432(Lab) & H13-433(Interview) **HCIE-Data Center Facility Design** H12-461(Written) & H12-462(Lab) & H12-463(Interview)
Datacom	**HCIA-Datacom** H12-811 exam **HCIA-Routing & Switching** H12-211 exam	**HCIP-Datacom-Advanced Routing & Switching Technology** H12-821 exam & H12-831 exam **HCIP-Datacom-Network Automation Developer** H12-821 exam & H12-881 exam **HCIP-Datacom-Campus Network Planning and Deployment** H12-821 exam & H12-841 exam **HCIP-Datacom-SD-WAN Planning and Deployment** H12-821 exam & H12-871 exam **HCIP-Routing & Switching** H12-221 exam & H12-222 exam & H12-223 exam **HCIP-Carrier IP** H31-124 exam	**HCIE-Routing & Switching** H12-261(Written) & H12-262(Lab) & H12-263(Interview) **HCIE-Carrier IP** H31-161(Written) & H31-162(Lab) & H31-163(Interview)
WLAN	**HCIA-WLAN** H12-311 exam	**HCIP-WLAN** H12-321 exam & H12-322 exam	/
Security	**HCIA-Security** H12-711 exam	**HCIP-Security** H12-721 exam & H12-722 exam & H12-723 exam	/
SDN	**HCIA-SDN** H31-611 exam	/	/
Transmission	**HCIA-Transmission** H31-311 exam	**HCIP-Transmission** H31-341 exam	/
Access	**HCIA-Access** H35-210 exam	**HCIP-Access** H35-211 exam	/
LTE	**HCIA-LTE** H31-411 exam **HCIA-LTE-RNP&RNO** H35-560 exam	**HCIP-LTE** H31-421 exam **HCIP-LTE-RNP&RNO** H35-561 exam	/
5G	**HCIA-5G** H35-460 exam **HCIA-5G-Bearer** H35-670 exam **HCIA-5G-RNP&RNO** H35-580 exam **HCIA-5G-RAN** H35-480 exam **HCIA-5G-Core** H35-650 exam	**HCIP-5G-RNP&RNO** H35-581 exam **HCIP-5G-RAN** H35-481 exam	/

HCIA-IoT

Training and certificating engineers who are capable of developing end-to-end IoT services based on Huawei IoT solution architecture.

Capabilities to be Certified

Have a good command of basic IoT knowledge and Huawei IoT solution architecture, be able to perform O&M and development based on the architecture, and be capable of developing end-to-end services based on the architecture. Be qualified for IoT O&M/development engineers.

Knowledge to Learn

Have a good command of basic IoT knowledge, key technologies of common IoT networks, usage of the IoT platform, and basic knowledge of C programming and be able to develop end-to-end services.

Target Audience

- ICT professionals or students interested in IoT technologies.

Content

HCIA-IoT V2.5 exam covers IoT concepts, IoT architecture, Huawei IoT solutions, common IoT communication technologies and solutions, NB-IoT communication technologies and solutions, 5G communication technologies and solutions, industrial IoT gateways, home IoT gateways, and IoT industry applications and solutions. Basic concepts and architecture of Huawei LiteOS, Huawei LiteOS kernel and framework, HUAWEI CLOUD IoT platform, HUAWEI CLOUD IoT platform secondary development, HUAWEI CLOUD IoT platform service process, and AT commands of communication modules.
IoT Overview and Network Layer Technology Overview(56%), Overview of Platform Layer Technologies(21%), Overview of Sensing Layer Technologies(21%), Device-Cloud Connection Experience and Practices(2%).

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H12-111	HCIA-IoT	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-IoT	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-IoT V2.0 Exam Outline
- **Training Material:** HCIA-IoT V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-IoT V2.0 Mock Exam

HCIP-IoT Developer

Training and certificating senior engineers with IoT application development capabilities.

Capabilities to be Certified

- A strong command of key features of the HUAWEI CLOUD IoT solution, product models and codec plug-in, technical principles of LwM2M/MQTT protocols, common IoT AT commands, and Huawei LiteOS.
- The ability to develop product models and codec plug-ins, use Huawei LiteOS to implement device-cloud interworking, flexibly use IoT protocols, and select different communication modes to develop product application capabilities.

Knowledge to Learn

Build data models for the IoT platform on HUAWEI CLOUD, customize codec plug-in, gain a deep understanding of RESTful APIs of the IoT platform and apply them to cloud services, and implement device-cloud interconnection based on the IoT operating system of Huawei LiteOS.

Target Audience

Those who are interested in IoT.

Content

- The HCIP-IoT Developer V2.5 Certification Exam covers:
- HUAWEI CLOUD IoT Solution(3%)
- Key Features of HUAWEI CLOUD IoT Solution(8%)
- HUAWEI CLOUD IoT E2E Development(14%)
- HUAWEI CLOUD Services(3%)
- NB-IoT Standards and Solutions(8%)
- Huawei NB-IoT Chips and Modules(3%)
- Technical Principles of LwM2M(5%)
- Technical Principles of MQTT(8%)
- AT Commands for Common IoT Modules(3%)
- IoT OS(3%)
- Huawei LiteOS Architecture(40%)
- Introduction to Common Sensors(2%)

Certification Exam

Prerequisites: It is recommended that you learn HCIA-IoT in advance.

Exam Code	Name	Expense	Duration	Language
H52-111	HCIP-IoT Developer	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-IoT Developer	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-IoT Developer V2.0 Exam Outline
- **Training Material:** HCIP-IoT Developer V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-IoT Developer V2.0 Mock Exam

HCIA-Big Data

Training and certificating engineers who are capable of using Huawei MRS big data development platform.

Capabilities to be Certified

- Master the technical principles and architectures of common and important big data components, including HDFS, Hive, HBase, Flume, Spark, Flink, Elasticsearch and Redis, and capable of using Huawei big data platform MRS.
- Able to operate and develop services based on Huawei MRS.
- Competent for positions related to big data development engineers.

Knowledge to Learn

Technical principles and architecture of common and important big data components. Knowledge and skills required for big data pre-sales, big data project management, and big data development .

Target Audience

Those who desire to become big data engineers. Those who desire to obtain the HCIA-Big Data certification. Junior big data engineers.

Content

HCIA-Big Data V3.0 exam covers: (1) Development trend of the big data industry, big data features, and Huawei Kunpeng big data. (2) Basic technical principles of common and important big data components (including HDFS, ZooKeeper, Hive, HBase, MapReduce, YARN, Spark, Flink, Flume, Loader, Kafka, LDAP and Kerberos, Elasticsearch and Redis). (3) Huawei big data solutions, functions and features, and success stories in the big data industry.
Key Points: Big Data Development Trend and Kunpeng Big Data Solution(3%), HDFS and ZooKeeper(12%), Hive - Distributed Data Warehouse(10%), HBase Technical Principles(11%), MapReduce and YARN Technical Principles(9%), Spark In-Memory Distributed Computing(7%), Flink, Stream and Batch Processing in a Single Engine(8%), Flume - Massive Log Aggregation(7%), Loader Data Conversion(5%), Kafka - Distributed Publish-Subscribe Messaging System(9%), LDAP and Kerberos(5%), Elasticsearch - Distributed Search Engine(5%), Redis In-Memory Database(5%), Huawei Big Data Solution(4%).

Certification Exam

Prerequisites: Has basic knowledge of network technology. Be familiar with basic operations on Linux operating systems.

Exam Code	Name	Expense	Duration	Language
H13-711	HCIA-Big Data	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-Big Data	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-Big Data V3.0 Exam Outline
- **Training Material:** HCIA-Big Data 32.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-Big Data V3.0 Mock Exam
- **Online Course:** HCIA-Big Data V3.0 Course

HCIP-Big Data Developer

Training and certificating engineers with big data application development capabilities.

Capabilities to be Certified

With HCIP-Big Data Developer V2.0 certification, you will be able to use Huawei MRS or open-source Hadoop platform components to develop applications in different service scenarios, including offline batch processing, real-time retrieval, real-time stream, and converged data warehouse scenarios. In addition, you will have E2E big data solution development capabilities, and are competent for big data application development positions.

Knowledge to Learn

The HCIP-Big Data Developer V2.0 certification courses include the general guide to big data application development, mainstream big data technologies, big data application development process, and big data scenario-based solutions (offline batch processing, real-time retrieval, real-time stream processing, and converged data warehouse). The courses provide rich in-class experiments and scenario-based case practices to improve trainees' practical capabilities and promote the cultivation of senior development engineers in the big data industry. Compared with V1.0, HCIP-Big Data Developer V2.0 adds four scenario-based practical drills, new big data application development technologies, and DWS.

Target Audience

Those who are dedicated to the industry analysis. Those who are interested in big data solution. Those who want to be a big data engineers.

Prerequisites

People who are similar with Java programming. People who are similar with SQL programming.

Content

The HCIP-Big Data Developer V2.0 exam covers: Big Data Application Development Overall Guide(5%), Big Data Offline Batch Processing Scenario-based Solution(20%), Big Data Real-time Retrieval Scenario-based Solution(25%), Big Data Real-time Stream Computing Scenario-based Solution(25%) and Big Data Converged Data Warehouse Scenario-based Solution(25%).

Certification Exam

Prerequisites: It is recommended that you learn HCIA-Big Data in advance..

Exam Code	Name	Expense	Duration	Language
H13-723	HCIP-Big Data Developer	US$300	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIP-Big Data Developer	Three Years	Three years	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Date of passing recertification exam

Learning Materials

- **Exam Outline:** HCIP-Big Data Developer V2.0 Exam Outline
- **Training Material:** HCIP-Big Data Developer V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Big Data Developer V2.0 Mock Exam

HCIE-Big Data-Data Mining

Training and certificating experts who are able to perform end-to-end modeling of big data through Huawei FusionInsight HD or open source technology platforms and solve practical business problems.

Capabilities to be Certified

Passing the HCIE-Big Data-Data Mining V2.0 certification will indicate that you:
1) have basic knowledge about mainstream technology of big data mining and complex data mining methods; 2) are able to perform end-to-end modeling of big data through Huawei FusionInsight HD or open source technology platforms 3) competent for the data mining positions

Knowledge to Learn

1) Data mining description. 2) Preliminary knowledge (mathematics and Python). 3) Data preprocessing. 4) Feature selection and dimension reduction. 5) Supervised learning. 6) Unsupervised learning. 7) Model evaluation and optimization. 8) Comprehensive data mining application. 9) Spark MLlib data mining. 10)Huawei Machine Learning Development Tools. 11) Big data architecture and big data governance. 12) Big data mining.

Taget Audience

Those who hope to become big data mining engineers; Those who hope to obtain an HCIE-Big Data-Data Mining certificate Expert of big data mining.

Prerequisites

Be familiar with SQL basics; Be familiar with big data basics; Be familiar with basic operations on Linux operating systems.
It is recommended that you learn HCIP-Big Data Operation & Maintenance in advance.

Content

The HCIE-Big Data-Data Mining V2.0 exam covers: 1) Data Mining-4%, 2) Prerequisites (Math and Python Basics)-12%, 3) Data Preprocessing-12%, 4) Feature Selection and Dimension Reduction-7%, 5) Supervised Learning-11%, 6) Unsupervised Learning-5%, 7) Model Evaluation and Optimization-12%, 8) Comprehensive Application of Data Mining-8%, 9) Data Mining Using Spark Mllib-11%, 10) HUAWEI Machine Learning Development Tools-6%, 11) FusionInsight Miner-9%, 12) Big Data Architecture and Governance, Big Data Mining-13%.

Certification Exam

Exam Policy: The training is optional. You can directly pass the written exam, lab exam, and interview to obtain certificate.
Prerequisites: It is recommended that you learn HCIP-Big Data Developer in advance. Five years' working experience in related fields is a plus.

Exam Code	Name	Expense	Duration	Language
H13-731	HCIE-Big Data Data Mining(Written)	US$300	90 minutes	English/Chinese
H13-732	HCIE-Big Data Data Mining(Lab)	US$1200	480 minutes	English/Chinese
H13-733	HCIE-Big Data Data Mining(Interview)		60 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIE-Big Data-Data mining	Two Years + one year grace period	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the cloud service and platform category.	Two years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Big Data-Data Mining V2.0 Exam Outline
- **Training Material:** HCIE-Big Data-Data Mining V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIE-Big Data-Data Mining V2.0 Mock Exam

HCIA-AI

Training and certificating engineers who can use algorithms, such as machine learning and deep learning algorithms, to design and develop AI products and solutions and make improvement through innovation.

Capabilities to be Certified

Passing the HCIA-AI V3.0 certification will indicate that you: 1)have mastered the AI development history, the Huawei Ascend AI system, the full-stack all-scenario AI strategy, and the algorithms related to traditional machine learning and deep learning. 2) are able to build, train, and deploy neural networks by using development frameworks TensorFlow and MindSpore. 3) competent for sales, marketing, product manager, project management, technical support, and other AI positions.

Knowledge to Learn

The cutting-edge AI technologies and development trends, the full-stack all-scenario AI strategy, the algorithms and development practices related to traditional machine learning, deep learning, development frameworks.

Target Audience

Engineers who need to master AI technologies, learn and use deep learning algorithms, and master Huawei AI-related product technologies.

Content

The HCIA-AI V3.0 exam covers: AI Overview(10%), Machine Learning Overview(20%), Deep Learning Overview(20%), Mainstream Development Frameworks for AI(18%), Huawei AI Development Framework MindSpore(2%), Huawei AI Computing Platform Atlas(5%), Huawei Open AI Platform for Smart Devices(2%), HUAWEI CLOUD Enterprise Intelligence Application Platform(8%), Comprehensive AI Experiment(15%).

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H13-311	HCIA-AI	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-AI	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-AI V3.0 Exam Outline
- **Training Material:** HCIA-AI V3.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-AI V3.0 Mock Exam
- **Online Course:** HCIA-AI V3.0 Course

HCIP-AI-EI Developer

Training and certificating senior engineers who are capable of achieving the AI development and innovation with Huawei Cloud EI and the ModelArts platform.

Capabilities to be Certified

Passing the HCIP-AI-EI Developer V2.0 certification will indicate that you: 1) have mastered the basic principles, architecture and programming of artificial intelligence technology in the field of image processing. Speech processing and natural language processing; 2) are able to develop AI models using python, TensorFlow and Huawei ModelArts; 3) competent for senior image processing engineers, speech recognition engineers, natural language processing engineers and other positions.

Knowledge to Learn

HCIP-AI-EI Developer V2.0 includes the following content: neural network basics, image processing theory and application, speech processing theory and application, natural language processing theory and application, ModelArts overview, image processing experiment, speech processing experiment, natural language processing experiment, and ModelArts platform development experiment. ModelArts is a one-stop development platform for AI developers. It provides services like massive data preprocessing, semi-automatic labeling, large-scale distributed training, automatic model generation, and on-demand model deployment on the device, edge, and cloud.

Target Audience

- Those who are interested in AI. Those who want to be an AI engineer.

Content

The HCIP-AI-EI Developer V2.0 exam covers:
Neural Network Basics(4%), Image Processing Theory and Applications(26%), Speech Processing Theory and Applications(10%), Natural Language Processing Theory and Applications(10%), Overview of Huawei's AI Development Strategy and Full-Stack(2%), Overview of ModelArts(4%), Image Processing Lab Guide(12%), Speech Processing Lab Guide(12%), Natural Language Processing Lab Guide(10%), ModelArts Lab Guide(10%).

Certification Exam

Prerequisites: It is recommended that you learn HCIA-AI in advance.

Exam Code	Name	Expense	Duration	Language
H13-321	HCIP-AI-EI Developer	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-AI-EI Developer	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-AI-EI Developer V2.0 Exam Outline
- **Training Material:** HCIP-AI-EI Developer V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-AI-EI Developer V2.0 Mock Exam

HCIA-Cloud Computing

Training and certificating engineers who are capable of collaborating in the deployment and O&M of cloud computing with virtualization technology.

Capabilities to be Certified

Certified individuals can use virtualization technology to build cloud computing and perform basic operations of cloud computing.

Knowledge to Learn

Introduction to cloud computing, KVM, FusionCompute and Docker.

Target Audience

Those who hope to become Cloud Computing engineers.

Content

HCIA-Cloud Computing V4.0 examination covers the introduction of Cloud Computing, Computing virtualization, basic knowledge of storage in Cloud Computing, basic knowledge of network in Cloud Computing, introduction of virtualization features and development trend of Cloud Computing. The exam questions will be tested the mastery of all knowledge points through huawei virtualization products.
A Brief Introduction to Cloud computing(7%), Introduction to Compute Virtualization(22%), Network Basics for Cloud Computing(22%), Storage Virtualization Basics(22%), Introduction to Virtualization Features(22%), Cloud Computing Trends(5%).

Certification Exam

Prerequisites: Be familiar with basic knowledge of IT Be familiar with basic knowledge of server and Linux OS Be familiar with basic knowledge of storage.

Exam Code	Name	Expense	Duration	Language
H13-511	HCIA-Cloud Computing	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-Cloud Computing	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-Cloud Computing V4.0 Exam Outline
- **Training Material:** HCIA-Cloud Computing V4.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-Cloud Computing V4.0 Mock Exam
- **Online Course:** HCIA-Cloud Computing V4.0 Course

HCIP-Cloud Computing

Training and certificating senior engineers who are capable of operating and maintaining FusionCompute virtualization and FusionAccess desktop cloud.

Capabilities to be Certified

Able to deploy and manage Huawei FusionSphere cloud operating system and FusionAccess desktop solution.

Knowledge to Learn

Technical principles and troubleshooting methods of FusionCompute and FusionAccess, Overview of Huawei server virtualization, compute virtualization, network virtualization, and storage virtualization technologies, O & M and troubleshooting of server virtualization products, Overview of the Huawei desktop solution, Desktop cloud architecture, Concepts and provisioning of linked clone desktops and full copy desktops, O&M and troubleshooting of desktop cloud systems.

Target Audience

Those who hope to become Cloud Computing engineers.

Content

The HCIP-Cloud Computing V4.0 exam requires candidates to be familiar with the following content:

- Technical principles and troubleshooting methods of FusionCompute and FusionAccess
- Overview of Huawei server virtualization, compute virtualization, network virtualization, and storage virtualization technologies
- O & M and troubleshooting of server virtualization products
- Overview of the Huawei desktop solution
- Desktop cloud architecture
- Concepts and provisioning of linked clone desktops and full copy desktops
- O & M and troubleshooting of desktop cloud systems

Introduction to the Huawei server virtualization product(40%), Introduction to the Huawei desktop cloud product(60%)

Certification Exam

Prerequisites: It is recommended that you learn HCIA-Cloud Computing in advance. Be familiar with operation system basic knowledge and applications, server basic knowledge and applications, network security basic knowledge and applications, storage basic knowledge and applications, and virtualization basic knowledge.

Exam Code	Name	Expense	Duration	Language
H13-527	HCIP-Cloud Computing	US$300	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Cloud Computing	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-Cloud Computing V4.0 Exam Outline
- **Training Material:** HCIP-Cloud Computing V4.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Cloud Computing V4.0 Mock Exam

HCIP-Cloud Computing-OpenStack

Training and certificating Senior engineers with O&M capabilities of large and medium-sized OpenStack cloud computing environments.

Capabilities to be Certified

Mastering the open source OpenStack daily management and O&M methods, having the O&M capabilities of large and medium-sized OpenStack cloud computing environments.

Knowledge to Learn

OpenStack overview, dashboard management, authentication management, image management, compute management, storage management, network management, orchestration management, troubleshooting, and Huawei OpenStack enhanced commercial solutions.

Target Audience

- People who want to be an OpenStack Senior Operations Manager/OpenStack Consultant.

Content

HCIP-Cloud Computing-OpenStack V1.0 exams include OpenStack overview, operation dashboard management, authentication management, image management, compute management, storage management, network management, orchestration management, troubleshooting, and Huawei OpenStack enhanced commercial solutions.
OpenStack Overview(3%), OpenStack Dashboard Management(2%), OpenStack Authentication Management(10%), OpenStack Image Management(10%), OpenStack Compute Management(20%), OpenStack Storage Management(20%), OpenStack Network Management(20%), OpenStack Orchestration management(5%), OpenStack Troubleshooting(8%), Huawei OpenStack Enhanced Commercial Solutions(2%).

Certification Exam

Exam policy: The training is optional.
Prerequisites: It is recommended that learning HCIA-Cloud Computing content in advance. Having good IT skills and understanding the main technical points of server, storage, network, virtualization, etc.; Having relevant working experience in cloud computing and understanding the development trend of cloud computing; Having the systematic knowledge of Linux operating system and operational experience.

Exam Code	Name	Expense	Duration	Language
H13-525	HCIP-Cloud Computing-OpenStack	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-Cloud Computing-OpenStack	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Cloud Computing-OpenStack V1.0 Exam Outline
- **Training Material:** HCIP-Cloud Computing-OpenStack V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Cloud Computing-OpenStack V1.0 Mock Exam

HCIP-Cloud Computing-Container

Training and certificating professionals who have skills of the open-source Docker and Kubernetes systems and can perform O&M and troubleshooting in the Docker and Kubernetes environment.

Capabilities to be Certified

Understood and mastered the open-source Docker and Kubernetes theories, have the O&M skills of large container clouds.

Knowledge to Learn

Container Technology Overview, Container Image, Container Network and Storage, Container Underlying Implementation Technology, PaaS Overview, Kubernetes Architecture, Deployment and Pod, Label and Label Selector, Service Discovery, DaemonSet and Job, Pod Health Check, Kubernetes Network and Storage, ConfigMap and Secret, StatefulSet, Kubernetes QoS, Kubernetes Resource Scheduling, Kubernetes Dashboard, Helm, RBAC, Kubernetes Log Management Solution, and Kubernetes Monitoring Solution.

Target Audience

- Those who want to master container implementation principles and O&M skills. Those who want to master the management and O&M skills of the Kubernetes platform. Those who desire to obtain the HCIP-Cloud Computing-Container V1.0 certification.

Content

HCIP-Cloud Computing-Container V1.0 certification exam covers the following: Container Technology Overview, Container Image, Container Network, Container Storage, Container Underlying Implementation Technology, PaaS Overview, Kubernetes Architecture, Deployment Management and Usage, Pod Management and Usage, Label and Label Selector, Service Discovery, DaemonSet and Job, Pod Health Check, Kubernetes Network, Kubernetes Storage, ConfigMap and Secret, StatefulSet Management and Usage, Kubernetes Quality of Service (QoS), Kubernetes Resource Scheduling, Kubernetes Dashboard, Helm (Kubernetes Package Manager), RBAC, Kubernetes Log Management Solution, and Kubernetes Monitoring Solution.
Container(20%), Paas Overview(6%), Kubernetes(74%).

Certification Exam

Exam policy: The training is optional.
Prerequisites: It is recommended that learning HCIA-Cloud Computing in advance. Have good IT skills and understand the technical key points in servers, storage, networks, and virtualization. Have experience in cloud computing and understand the development trend of cloud computing. Master basic knowledge of Linux OSs and be experienced in using Linux OSs.

Exam Code	Name	Expense	Duration	Language
H13-526	HCIP-Cloud Computing-Container	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-Cloud Computing-Container	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Cloud Computing-Container V1.0 Exam Outline
- **Training Material:** HCIP-Cloud Computing-Container V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Cloud Computing-Container V1.0 Mock Exam

HCIE-Cloud Computing

Training and certificating experts with comprehensive capabilities of Huawei cloud data center deployment, O&M, backup and migration.

Capabilities to be Certified

Deep understanding of the cloud computing technologies and the knowledge of cloud computing deployment, O&M, migration, troubleshooting, and backup and DR of large and medium-sized enterprises, and you have the capabilities of building an enterprise cloud computing platform using Huawei cloud computing products.

Knowledge to Learn

Cloud DC-level operation and O&M, cloud computing backup & DR, cloud computing service migration, cloud computing troubleshooting, cloud computing planning and best practices.

Target Audience

Those who want to be cloud computing expert /Those who want to be cloud computing architect /Those who want to achieve HCIE-Cloud Computing certification.

Content

The HCIE-Cloud exam covers FusionCloud private cloud solution, FusionSphere server virtualization solution, FusionAccess cloud desktop solution. Based on these solutions, you need to master cloud DC-level operation and O&M, cloud computing backup&DR, cloud computing service migration, cloud computing troubleshooting, cloud computing planning and best practices.

Certification Exam

Exam Policy: The training is optional. You can directly pass the written exam, lab exam, and interview to obtain certificate.
Prerequisites: Know server basal knowledge and application, Know storage basal knowledge and application, Know network basal knowledge and application, Know Huawei cloud computing basics and operational skills. It is recommended that learning HCIP-Cloud Computing in advance. Five years' working experience in related fields is a plus.

Exam Code	Name	Expense	Duration	Language
H13-531	HCIE-Cloud Computing (Written)	US$300	90 minutes	English/Chinese
H13-532	HCIE-Cloud Computing (Lab)	US$1200	480 minutes	English/Chinese
H13-533	HCIE-Cloud Computing (Interview)		60 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIE-Cloud Computing	Two Years + one year grace period	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the cloud service and platform category.	Two years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Cloud Computing V2.0 Exam Outline
- **Training Material:** HCIE-Cloud Computing V2.0 Training
- **Mock Exam:** HCIE-Cloud Computing Written V2.0 Mock Exam
- **Online Course:** HCIE-Cloud Computing V2.0 Course

HCIA-Cloud Service

Huawei certified HCIA-Cloud Service V2.2 aims to cultivate engineers who have mastered cutting-edge knowledge and skills of public cloud and are proficient in using HUAWEI CLOUD service products.

Capabilities to be Certified

Have a good command of cloud service concepts and values, Huawei cloud service architecture and ecosystem, and management and application of Huawei cloud computing services, storage services, network services, security services, management and monitoring services, relational databases, CDN&cloud video services, and innovative application services.

Knowledge to Learn

Cloud service concepts and values, Huawei cloud service architecture and ecosystem, management and application of Huawei cloud computing services, storage services, network services, security services, management and monitoring services, relational databases, CDN&cloud video services, and innovative application services.

Target Audience

People who are interested in cloud technologies and want to become cloud service engineers.

Content

Huawei HCIA-Cloud Service V2.2 certification course covers the Concepts and Values of Cloud Services and Huawei Public Cloud Architecture and Ecosystem (5%), Concepts and Values of Cloud Services and Huawei Public Cloud Architecture and Ecosystem(19%), storage Cloud services(18%), network Cloud service(20%), Management and Deployment Services(8%), HUAWEI CLOUD - Relational Database Service(10%), Huawei Cloud Service - Security Service(8%), HUAWEI CLOUD Service - CDN & Cloud Video Service(5%), HUAWEI CLOUD Service - Innovative Application Services(7%).

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H13-811	HCIA-Cloud Service	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-Cloud Service	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-Cloud Service V2.2 Exam Outline
- **Training Material:** HCIA-Cloud Service V2.2 Training Material and Lab Guide
- **Mock Exam:** HCIA-Cloud Service V2.2 Mock Exam
- Online Course: HCIA-Cloud Service V2.2 Online Course

HCIP-Cloud Service Solutions Architect

Training and certificating senior engineers with cloud-based architectural design and analysis of traditional applications.

Capabilities to be Certified

Passing the HCIP-Cloud Service Solutions Architect V2.0 certification will indicate that you: 1) will be qualified for the positions of small-sized enterprise cloud architect engineer. 2)have mastered the theoretical foundation of cloud architecture design of the traditional applications or architecture design of cloud-native applications, and be familiar with industry innovation technologies and Huawei cloud solutions.

Knowledge to Learn

1. Understand how software architecture evolves. 2. Distinguish between cloud service categories. 3. Understand the cloud architecture design principles. 4. Have a deep understanding of HUAWEI CLOUD compute product series. 5. Select the most suitable compute products based on your application scenarios. 6. Use HUAWEI CLOUD compute products to build scalable services. 7. Be familiar with the HUAWEI CLOUD solution in the evolution of enterprise application architecture. 8. Understand DevOps platforms on HUAWEI CLOUD and their functions. 9. Master how to use EI services or solutions to meet customers' business requirements. 10. Understand the architecture and deployment plans of DeC and HCS Online.

Target Audience

People who want to be cloud service architects. People who want to obtain HCIP-Cloud Service Solutions Architect V2.0 certificates.

Content

The HCIP-Cloud Service Solutions Architect exam includes: Enterprise IT Evolution(5%), Cloud Architecture Analysis of Conventional Application(35%), Cloud Native Application Architecture(20%), Innovative Technologies in the Industry and HUAWEI CLOUD Solutions(20%), HUAWEI CLOUD Solutions(20%).

Certification Exam

Prerequisites: It is recommended that you learn HCIA-Cloud Service in advance.

Exam Code	Name	Expense	Duration	Language
H13-821	HCIP-Cloud Service Solutions Architect	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-Cloud Service Solutions Architect	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the cloud service and platform category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Cloud Service Solutions Architect V2.0 Exam Outline
- **Training Material:** HCIP-Cloud Service Solutions Architect V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Cloud Service Solutions Architect V2.0 Mock Exam

HCIE-Cloud Service Solutions Architect

Training and Certificating specialists who want to be capable of managing complex enterprise IT systems on HUAWEI CLOUD from end to end, including architecture planning and design, deployment and O&M, and migration of application systems to HUAWEI CLOUD.

Capabilities to be Certified

Passing the HCIE-Cloud Service Solutions Architect V1.0 certification will indicate that you: 1) have mastered theories of designing and deploying scalable service architectures on HUAWEI CLOUD; 2) will be capable of architecture design, service selection, application reconstruction, multi-dimensional O&M, security hardening, and cloud migration; 3) will be competent for cloud system architects and cloud migration expert positions.

Knowledge to Learn

1.Be familiar with HUAWEI CLOUD infrastructure, pricing, and ecosystem. 2. Understand HUAWEI CLOUD network, compute and storage design principles for different scenarios. 3. Determine database services based on business requirements and design the database architecture. 4. Master the design methods and principles of the microservice architecture. 5. Use HUAWEI CLOUD ServiceStage to build and govern microservices. 6. Understand customers' requirements for cloud security and solutions. 7. Use tools for HUAWEI CLOUD basic O&M and multi-dimensional O&M. 8. Use migration tools provided by HUAWEI CLOUD.

Taget Audience

People who want to be cloud service architects; People who want to obtain HCIE-Cloud Service certificates; People who want to master the overall architecture planning and design, business scenario solution design, and best practices of HUAWEI CLOUD.

Prerequisites

Have basic knowledge of public cloud services. Be familiar with basic operations of public cloud services. Be familiar with the basic principles of cloud computing, database, and Linux.
It is recommended that you learn HCIP-Cloud Service Solutions Architect in advance.

Content

The HCIE-Cloud Service Solutions Architect exam includes: HUAWEI CLOUD Overview and Architecture Design Principles, HUAWEI CLOUD Network Architecture Design, HUAWEI CLOUD Compute Architecture Design, HUAWEI CLOUD Storage Architecture Design, HUAWEI CLOUD Database Architecture Design, HUAWEI CLOUD Application Architecture Design, HUAWEI CLOUD Big Data Processing and Analytics, HUAWEI CLOUD O&M Architecture Design, HUAWEI CLOUD Security Architecture Design, HUAWEI CLOUD Cloud Migration Solution.

Certification Exam

Exam Policy: You can directly pass the written exam, lab exam, and interview to obtain certificate.
Prerequisites: It is recommended that you learn HCIP-Cloud Service Solutions Architect in advance. Five years' working experience in related fields is a plus.

Exam Code	Name	Expense	Duration	Language
H13-831	HCIE-Cloud Service Solutions Architect(Written)	US$300	90 minutes	English/Chinese
H13-832	HCIE-Cloud Service Solutions Architect(Lab)	US$1200	480 minutes	English/Chinese
H13-833	HCIE-Cloud Service Solutions Architect(Interview)		60 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIE-Cloud Service Solutions Architect	Two Years + one year grace period	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the cloud service and platform category.	Two years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Cloud Service Solutions Architect V1.0 Exam Outline
- **Training Material:** HCIE-Cloud Service Solutions Architect V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIE-Cloud Service Solutions Architect V1.0 Mock Exam

HCIA-Storage

Training and certificating engineers with basic knowledge and product O&M skills in storage field.

Capabilities to be Certified

With HCIA-Storage V4.5 certification, you will understand and master the knowledge and skills about storage technology trends, storage systems architecture, storage basic technologies, storage common advanced technologies, storage service continuity solutions, and basic O&M management of storage systems; are able to deploy, operate, maintain and manage storage systems; are competent for enterprise storage engineers, IT technical support and other positions.

Knowledge to Learn

The HCIA-Storage V4.5 certification courses include knowledge about storage technology trends, storage basic technologies, storage common advanced technologies, storage business continuity solutions and storage system O&M management.

Target Audience

Those who want to be storage engineer. Those who want to achieve HCIA-Storage certification. Administrator of storage array.

Content

The HCIA-Storage V4.5 exam covers: Storage Technology Trends(10%), Storage Basic Technologies(60%), Storage Common Advanced Technologies(20%), Storage Business Continuity Solutions(5%), Storage System O&M Management(5%).

Certification Exam

Prerequisites: Understand basic network knowledge. Understand computer components. Understand the basic knowledge of the Windows and Linux operating systems.

Exam Code	Name	Expense	Duration	Language
H13-611	HCIA-Storage	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-Storage	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-Storage V4.5 Exam Outline
- **Training Material:** HCIA-Storage V4.5 Training Material and Lab Guide
- **Mock Exam:** HCIA-Storage V4.5 Mock Exam
- **Online Course:** HCIA-Storage V4.5 Course

HCIP-Storage

Train and certificate senior engineers with capability of planning and design, deployment and implementation, management and O&M, as well as troubleshooting of storage systems.

Capabilities to be Certified

With HCIP-Storage V5.0 certification, you will understand and master the knowledge about storage product technologies, principles and application scenarios of storage advanced features, and skills about planning and design, deployment and implementation, management and O&M, as well as troubleshooting of storage systems; which enables you to be competent for enterprise storage system administrator, senior engineer, IT senior technical support and other positions.

Knowledge to Learn

The HCIP-Storage V5.0 certification courses include knowledge about system introduction, flash storage technology and application, distributed storage technology and application, storage design and implementation and storage maintenance and troubleshooting.

Target Audience

Those who want to be storage engineer, Those who want to achieve HCIP-Storage certification, Administrator of storage array.

Content

The HCIP-Storage V5.0 exam covers: Storage System Introduction(30%), Flash Storage Technology and Application(30%), Distributed Storage Technology and Application(20%), Storage Design and Implementation(10%), Storage Maintenance and Troubleshooting(10%).

Certification Exam

Prerequisites: It is recommended that you learn HCIA-Storage in advance. Understand basic network knowledge. Understand computer components. Understand the basic knowledge of the Windows and Linux operating systems. Have a good command of HCIA-Storage

Exam Code	Name	Expense	Duration	Language
H13-624	HCIP-Storage	US$300	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Storage	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-Storage V5.0 Exam Outline
- **Training Material:** HCIP-Storage V5.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Storage V5.0 Mock Exam

HCIE-Storage

Training and certificating storage experts with capability of requirement analysis, planning and design, deployment and implementation, performance tuning, advanced O&M management, and troubleshooting at the Huawei storage solution layer.

Capabilities to be Certified

With HCIE-Storage V2.5 certification, you will have a good command of key technical principles, planning and design processes, deployment implementation methods and tools, performance tuning principles, advanced O&M management, and troubleshooting of typical storage solutions, such as storage backup, active-passive DR, active-active DR, and storage data migration; are able to design, manage, build and develop high availability storage solutions; which makes you competent to be a storage solution expert, storage architect and other positions.

Knowledge to Learn

The HCIE-Storage V2.5 certification courses include knowledge about Key Points of Storage, Storage Design and Tuning, Storage Solutions, Storage Maintenance and Troubleshooting.

Target Audience

People who want to become experts in the storage industry and people who want to obtain the HCIE-Storage certification, such as data center storage system architects, ICT professionals, and Huawei channel engineers, etc.

Content

The HCIE-Storage V2.5 exam covers: Key Points of Storage, Storage Design and Tuning, Storage Solutions, Storage Maintenance and Troubleshooting.
Written Exam: Key Points of Storage(30%), Storage Design and Tuning(20%), Storage Solutions(40%), Storage Maintenance and Troubleshooting(10%).
Lab Exam: Scenario-based Practice of Storage Data Migration Solution(10%), Scenario-based Practice of Storage Backup Solution(10%), Scenario-based Practice of Storage A-P Solution(30%), Scenario-based Practice of Storage A-A Solution(30%), Scenario-based Practice of Distributed Storage Solution(10%), Scenario-based Practice of Storage Performance Tuning(5%).
Interview Exam: Key Points of Storage(30%), Storage Design and Tuning(20%), Storage Solutions(40%), Storage Maintenance and Troubleshooting(10%).

Certification Exam

Exam Policy: You can directly pass the written exam, lab exam, and interview to obtain certificate.
Prerequisites: At least 3 years of hands-on experience in storage is recommended. At least 5 years of storage data analysis experience is recommended. Experience and expertise in Huawei storage service designing, storage solution building, maintaining and tuning are recommended.

Exam Code	Name	Expense	Duration	Language
H13-629	HCIE-Storage (Written)	US$300	120 minutes	English/Chinese/Spanish/French/Russia
H13-630	HCIE-Storage (Lab)	US$1200	480 minutes	English/Chinese
H13-631	HCIE-Storage (Interview)		60 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIE-Storage	Two Years + one year grace period	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the ICT Infrastructure category.	Two years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Storage V2.5 Exam Outline
- **Training Material:** HCIE-Storage V2.5 Training
- **Mock Exam:** HCIE-Storage V2.5 Mock Exam

HCIA-Intelligent Computing

Training and certificating engineers with basic design, deployment and basic O&M capabilities of intelligent computing products and solutions.

Capabilities to be Certified

Enable engineers with basic knowledge and skills in intelligent computing field, including computing industry basis, chip technology, computing system architecture and products etc.

Knowledge to Learn

Brief history and development trend of the computing industry, Overview of the computing system architecture, Computing platform and common technologies, Industry solution cases.

Target Audience

People who want to become intelligent computing engineers People who want to obtain HCIA-Intelligent Computing certification.

Content

The HCIA-Intelligent Computing exam includes: Brief History and Development Trend of the Computing Industry, Overview of the Computing System Architecture, Introduction to Computing Platform Products, Common Technologies and O&M of the Computing Platform and Industry Solution Cases.
Brief History and Development Trend of the Computing Industry(10%), Overview of the Computing System Architecture(20%), Introduction to Computing Platform Products(30%), Common Technologies and O&M of the Computing Platform(30%), Industry Solution Cases(10%).

Certification Exam

Exam policy: The training is optional.
Prerequisites: None

Exam Code	Name	Expense	Duration	Language
H13-211	HCIA-Intelligent Computing	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-Intelligent Computing	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-Intelligent Computing V1.0 Exam Outline
- **Training Material:** HCIA-Intelligent Computing V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-Intelligent Computing Mock Exam
- **Online Course:** HCIA-Intelligent Computing Course

HCIP-Intelligent Computing

Training and certificating senior engineers with intelligent computing system solution planning, software and hardware installation and deployment, intelligent O&M and typical fault handling capabilities.

Capabilities to be Certified

Help the professionals build the capability of managing and employing the intelligent computing products, including product planning and designing, installation and deployment, intelligent operation, maintenance and troubleshooting.

Knowledge to Learn

Introduction to intelligent computing products, Intelligent computing product planning and design, Intelligent computing product installation and deployment, Intelligent O&M and troubleshooting.

Target Audience

- People who want to become Huawei's senior intelligent computing engineers.

Content

The HCIP-Intelligent Computing exam includes: Introduction to Intelligent Computing Products, Intelligent Computing Product Planning and Design, Intelligent Computing Product Installation and Deployment, Intelligent O&M and Troubleshooting.
Introduction to Intelligent Computing Products(20%), Intelligent Computing Product Planning and Design(20%), Intelligent Computing Product Installation and Deployment(30%), Intelligent O&M and Troubleshooting(30%).

Certification Exam

Prerequisites: Have a basic understanding of IT technology and network knowledge, Have mastered the content involved in HCIA-Intelligent Computing. It is recommended that you learn HCIA-Intelligent Computing in advance.

Exam Code	Name	Expense	Duration	Language
H13-221	HCIP-Intelligent Computing	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-Intelligent Computing	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Intelligent Computing V1.0 Exam Outline
- **Training Material:** HCIP-Intelligent Computing V1.0 Training Material
- **Mock Exam:** HCIP-Intelligent Computing V1.0 Mock Exam
- **Online Course:** HCIP-Intelligent Computing V1.0 Course

HCIE-Intelligent Computing

Training and certificating intelligent computing experts with capabilities of computing key technology, intelligent computing solution architecture design, deployment and computing system optimization.

Capabilities to be Certified

Passing the HCIE-Intelligent Computing V1.0 certification will indicate that you: 1) have insights into intelligent computing ecosystem and knowledge about key technologies and applications; 2) are able to perform the solution architecture design, deployment and system optimization of typical scenarios in intelligent computing field; 3) are competent for intelligent computing pre-sales/after-sales technical support, intelligent computing solution application expert, data center server architect engineer and other positions.

Knowledge to Learn

1. Describe the current situation and challenges of the computing industry. 2. Understand the industry's countermeasures. 3. Distinguish technologies between general-purpose and heterogeneous computing. 4. Describe the working principles of acceleration components and common computing platforms. 5. Have general knowledge of the basic concepts, application scenarios, software and hardware architectures, and key technologies of the intelligent computing solution. 6. Describe the delivery process of typical solutions. 7. Understand basic methods and common tools for system optimization. 8. Have a good command of parameter optimization methods in typical application scenarios.

Taget Audience

People who want to become intelligent computing experts; People who want to obtain HCIE-Intelligent Computing certification.

Prerequisites

It is recommended that you learn HCIP-Intelligent Computing in advance.

Content

The HCIE-Intelligent Computing exam includes: Insight into computing industry ecosystem, Key technologies and applications, Intelligent computing solution design and practice, Intelligent computing system optimization.

HCIE-Intelligent Computing(Written): Insight into computing industry ecosystem(5%), Key technologies and applications(10%), Intelligent computing solution design and practice(70%), Intelligent computing system optimization(15%).

HCIE-Intelligent Computing(Lab): Intelligent computing solution design and practice(80%), Intelligent computing system optimization(20%).

HCIE-Intelligent Computing(Interview): Insight into computing industry ecosystem(5%), Key technologies and applications(5%), Intelligent computing solution design and practice(70%), Intelligent computing system optimization(20%)

Certification Exam

Exam Policy: The training is optional. You can directly pass the written exam, lab exam, and interview to obtain certificate.
Prerequisites: It is recommended that you learn HCIP-Intelligent Computing in advance. Five years' working experience in related fields is a plus.

Exam Code	Name	Expense	Duration	Language
H13-231	HCIE-Intelligent Computing(Written)	US$300	90 minutes	English/Chinese
H13-232	HCIE-Intelligent Computing(Lab)	US$1200	480 minutes	English/Chinese
H13-233	HCIE-Intelligent Computing(Interview)		60 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIE-Intelligent Computing	Two Years + one year grace period	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the ICT Infrastructure category.	Two years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Intelligent Computing V1.0 Exam Outline
- **Training Material:** HCIE-Intelligent Computing V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIE-Intelligent Computing Mock Exam
- **Online Course**: HCIE-Intelligent Computing V1.0 Course

HCIA-Unified Communication

Training and certificating engineers who are capable of collaborating in the deployment and operation of Huawei unified communication system.

Capabilities to be Certified

Grasp the network systems and technologies of enterprise-class unified communications, and be able to assist in deploying and maintaining Huawei UC systems.

Knowledge to Learn

Basic UC concepts, system functions, hardware structure, system networking structure, and business applications Simple login operations of access devices and terminal devices.

Target Audience

- Those who hope to become unified communications engineers.

Content

HCIA-Unified Communication curriculum includes Basic Concepts on TDM and VoIP Voice Network, eSpace IPT Solution Introduction, IPT System Installation and Initial Configuration (including U1900, IAD, IP Phone), IPT Basic Call Services Deployment (Intra-office and Inter-office Call), IPT Basic Service Application (Number Conversion Based on Prefix, Intelligent Routing, Automatic Switchboard, Built-in Voice Mailbox, CDR System), eSpace IP Phone Deployment.
eSpace IPT Solution Basis(40%), Basic Call Scenario(20%), eSpace IPT Basic Service Application(30%), eSpace IPT System Routine Maintenance and Troubleshooting(10%).

Certification Exam

Exam Policy: The training is optional. **Prerequisites:** None.

Exam Code	Name	Expense	Duration	Language
H11-811	HCIA-Unified Communication	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-Unified Communication	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-Unified Communication V2.8 Exam Outline
- **Training Material:** HCIA-Unified Communication V2.8 Training Material and Lab Guide
- **Mock Exam:** HCIA-Unified Communication V2.8 Mock Exam
- **Online Course**: HCIA-Unified Communication V2.8 Course

HCIP-Unified Communication

Training and certificating senior engineers who are capable of independently designing, deploying, and operating unified communication systems in the IT field.

Capabilities to be Certified

Grasp the advanced features and applications of the eSpace UC solution, and be able to construct the unified communication solution independently, perform daily maintenance and delivery testing of the platform.

Knowledge to Learn

The principle and protocol analysis of unified communication, installation, data configuration, routine maintenance, and troubleshooting of Huawei IPT and UC systems.

Target Audience

- Those who hope to become unified communications engineers

Content

The HCIP-Unified Communication V2.9 exam covers the following: eSpace UC system overview and Solution, eSpace IPT advanced call service configuration, eSpace UC service deployment and configuration, Advanced UC features introduction, Extranet access of UC terminals, Toll fraud prevention, Console system, eSpace audio recorder, eSpace UC routine maintenance and troubleshooting.
eSpace UC system overview and solution(22%), eSpace UC service introduction and configuration(20%), eSpace IPT advanced call service(38%), Advanced UC features(8%), eSpace UC routine maintenance and troubleshooting(12%).

Certification Exam

Prerequisites: It is recommended that you learn HCIA-unified Communication in advance.

Exam Code	Name	Expense	Duration	Language
H11-828	HCIP-Unified Communication	US$300	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Unified Communication	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-Unified Communication V2.9 Exam Outline
- **Training Material:** HCIP-Unified Communication V2.9 Training Material and Lab Guide
- **Mock Exam:** HCIP-Unified Communication V2.9 Mock Exam

HCIA-Video Conference

Training and certificating engineers with capability of basic operation and product O&M skills in video conferencing field.

Capabilities to be Certified

After passing the HCIA-Video Conference V3.0 certification, you will have a good command of understanding and mastering the video conferencing technologies, video conferencing protocols, video conferencing endpoint features and O&M, IdeaHub product features and O&M, MCU product features, SMC product features, recording product features, and basic O&M management of the video conferencing system, be able to operate, maintain and manage video conferencing system. You will be qualified for video conferencing engineers.

Knowledge to Learn

Video conferencing technologies, video conferencing protocols, video conferencing endpoint features and O&M, IdeaHub product features and O&M, MCU product features, SMC product features, recording product features, and basic O&M management of the video conferencing system.

Target Audience

Personnel who want to become video conferencing engineers, Personnel who want to obtain HCIA-Video Conference V3.0 certification.

Content

HCIA-Video Conference V3.0 exam covers basic knowledge about configuration and operations of the video conferencing system, including the video conferencing technologies(13%), video conferencing protocols(18%), video conferencing endpoint features and O&M(14%), IdeaHub product features and O&M(20%), MCU product features(12%), SMC product features(18%), recording product features, and basic O&M management of the video conferencing system(5%).

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H11-851	HCIA-Video Conference	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Rule	Start Date of Validity
HCIA-Video Conference	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-Video Conference V3.0 Exam Outline
- **Training Material:** HCIA-Video Conference V3.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-Video Conference V3.0 Mock Exam
- **Online Course:** HCIA-Video Conference V3.0 Course

HCIP-Video Conference

Training and certificating senior engineers with deployment, management and maintenance capabilities in the visual field.

Capabilities to be Certified

Be able to master the video conference call process and advanced features. Be able to independently deploy, maintain, and manage medium- and large-sized video conference systems.

Knowledge to Learn

H.323 Protocol System, SIP protocol, RTP and RTCP protocol, Audio encoding technology, Video encoding technology, basic principles of integrated videoconferencing system, HD video terminal/MCU/SMC-advanced, network monitoring tools, videoconferencing system troubleshooting, videoconferencing Public-Private network traversal solution, Huawei videoconferencing Recording solution, etc

Target Audience

Those who want to be a senior administrator of medium- and large-sized videoconferencing systems.

Content

The HCIP-Video Conference V2.0 exam covers Wireshark packet capturing introduction(5%), H.323 Protocol System(5%), SIP protocol(5%), RTP and RTCP protocol(5%), Audio encoding technology(5%), Video encoding technology(5%), basic principles of integrated videoconferencing system(10%), HD video terminal-advanced(5%), multipoint control unit (MCU)-advanced(10%), service management center-advanced(10%), network monitoring tools(5%), videoconferencing system troubleshooting(5%), videoconferencing Public-Private network traversal solution(10%), Huawei videoconferencing Recording solution(10%) and Network Recording & Streaming Server(5%) ,etc

Certification Exam

Prerequisites: It is recommended that you learn HCIA-Video Conference in advance.

Exam Code	Name	Expense	Duration	Language
H11-861	HCIP-Video Conference	US$300	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Video Conference	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-Video Conference V2.0 Exam Outline
- **Training Material:** HCIP-Video Conference V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Video Conference V2.0 Mock Exam
- **Online Course:** HCIP-Video Conference V2.0 Course

HCIE-Enterprise Communication

Training and certificating experts who are capable of planning, designing, deploying, operating and maintaining large integrated enterprise communication solutions in the IT field.

Capabilities to be Certified

Grasp the solutions and best practices of typical enterprise communication, and be able to plan, design, deploy and maintain large-scale integrated enterprise communication solutions.

Knowledge to Learn

Enterprise communication system overview, voice and video principles, enterprise communication field standards and protocols, video conferencing solution and products, unified communications solution and products, convergent conference, system maintenance and reliabilities, troubleshooting, etc

Target Audience

- Those who hope to become enterprise communication experts.

Content

The HCIE-Enterprise Communication Exam covers the enterprise communication video conference, unified communication and convergent conference knowledge, it mainly includes enterprise communication common technologies principle, protocols, signal process, system networking design, advanced product technologies, system security and reliability, product operation and maintenance, system troubleshooting, etc.

Certification Exam

Exam Policy: The training is optional. You can directly pass the written exam, lab exam, and interview to obtain certificate.
Prerequisites: It is recommended that you learn HCIP-Video Conference and HCIP-Unified Communication in advance. Five years' working experience in related fields is a plus.

Exam Code	Name	Expense	Duration	Language
H11-879	HCIE-Enterprise Communication (Written)	US$300	90 minutes	English/Chinese
H11-880	HCIE-Enterprise Communication (Lab)	US$1200	480 minutes	English/Chinese
H11-881	HCIE-Enterprise Communication (Interview)		60 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIE-Enterprise Communication	Two Years + one year grace period	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the ICT Infrastructure category.	Two years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Enterprise Communication V1.0 Exam Outline
- **Training Material:** HCIE-Enterprise Communication V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIE-Enterprise Communication V1.0 Mock Exam

HCIA-Data Center

Training and certificating engineers who are capable of deploying, operating and maintaining cloud data center ICT infrastructures.

Capabilities to be Certified

A basic understanding of cloud data center architecture and technologies, master Huawei cloud data center hardware and software basic operation and maintenance, and with the ability to deploy and maintain the cloud data center network, security, computing, storage and resource virtualization.

Knowledge to Learn

Cloud data center knowledge basis, Huawei cloud data center products hardware installation and maintenance, IT infrastructure basic operation and maintenance, cloud data center basic operation and maintenance.

Target Audience

Professionals or students interested in data center ICT technologies.

Content

The HCIA-Data Center exam provides knowledge on the basic function modules at L2 to L4 of a data center (DC), covering basic DC knowledge, network and security (including traditional datacom networks and SDN technologies), storage, server, virtualization, and cloud computing. It focuses on the basic concepts of the DC, network architecture basics, basic concepts of Huawei DC products and new technologies, and basic management and O&M operations of cloud DCs.
DC Overview(15%), Hardware Installation and O&M of Physical Products in a Huawei DC(15%), IT Infrastructure Technology Basics and Management Software of a Cloud DC(40%), Huawei Cloud DC Management and O&M(30%).

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H13-411	HCIA-Data Center	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-Data Center	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-Data Center V1.5 Exam Outline
- **Training Material:** HCIA-Data Center V1.5 Training Material and Lab Guide
- **Mock Exam:** HCIA-Data Center V1.5 Mock Exam
- **Online Course:** HCIA-Data Center V1.5 Course

HCIP-Data Center

Training and certificating senior engineers who are capable of deploying, operating and maintaining cloud data center ICT infrastructures.

Capabilities to be Certified

An in-depth understanding of the cloud data center architecture and technologies, mastered deployment and operation methods for mainstream cloud data center solutions and technologies, and developed deployment and O&M capabilities for complex cross-field technologies including cloud data center network, security, computing, storage, and virtualization technologies.

Knowledge to Learn

Deployment and O&M of cloud data center underlay networks, overlay SDNs, network security, storage, servers, cloud platforms, converged resource pools, distributed storage, and unified management platforms.

Target Audience

Professionals or students interested in data center ICT technologies.

Content

The HCIP-Data Center exam provides knowledge on the basic function modules at L2 to L4 of a data center (DC), covering the deployment and O&M of IT infrastructure and converged resource pools in the cloud DC. It focuses on the deployment and O&M capabilities of the preceding cloud DC products and solutions. The exam includes two parts: deployment and O&M of IT infrastructure and converged resource pools in a cloud DC.

Certification Exam

Exam Policy: You need to take the two exams to obtain certificate.
Prerequisites: It is recommended that you learn HCIA-Data Center in advance.

Exam Code	Name	Expense	Duration	Language
H13-421	HCIP-Data Center-ITIDM	US$160	90 minutes	English/Chinese
H13-422	HCIP-Data Center-CDCDM	US$160	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-Data Center	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Data Center V1.0 Exam Outline
- **Training Material:** HCIP-Data Center V1.0 Training Material
- **Mock Exam:** HCIP-Data Center V1.0 Mock Exam

HCIE-Data Center

Training and certificating experts who are capable of independently planning, designing, deploying, operating and maintaining and optimizing large and medium-sized data centers.

Capabilities to be Certified

A deep understanding of large and medium-sized cloud data center mainstream solutions and technologies, and have the ability to plan and design, operate and maintain L2-L4 of the cloud data center, Such as network, security, computing, storage, virtualization and etc.

Knowledge to Learn

Cloud data center solutions, network and security design, computing and storage network design, cloud data center unified management, cloud data center disaster recovery and backup.

Target Audience

Professionals or students interested in data center ICT technologies.

Content

The knowledge of HCIE-Data Center V2.0 covers all functional modules of the data center, including data center overview, SDN network, storage, server, cloud computing, disaster recovery and backup, unified management, and Huawei data center solution. Focus on the planning and design, operation deployment, and O&M optimization capabilities of the overall data center architecture. The exam is divided into three phases: Theoretical examination, experimental examination and interview.

Certification Exam

Exam Policy: The training is optional. You can directly pass the written exam, lab exam, and interview to obtain certificate.
Prerequisites: It is recommended that you learn HCIP-Data Center in advance. Five years' working experience in related fields is a plus.

Exam Code	Name	Expense	Duration	Language
H13-431	HCIE-Data Center (Written)	US$300	90 minutes	English/Chinese
H13-432	HCIE-Data Center (Lab)	US$1200	480 minutes	English/Chinese
H13-433	HCIE-Data Center (Interview)		60 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIE-Data Center	Two Years + one year grace period	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the ICT Infrastructure category.	Two years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Data Center V2.0 Exam Outline
- **Training Material:** HCIE-Data Center V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIE-Data Center V2.0 Mock Exam

HCIA-Data Center Facility

Training and certificating junior engineers with basic deployment and O&M capabilities in the data center facility field.

Capabilities to be Certified

Have basic deployment and O&M capabilities of the data center facility and be competent for positions such as junior implementation engineers and junior O&M engineers.

Knowledge to Learn

EHS safety knowledge, Development History and Trend of Data Center, Working principles and main product categories of the 8 Subsystems of the Data Center Facility. The 8 subsystems of the data center facility are as follows: power distribution system, cooling system, integrated cabling system, monitoring system, fire extinguishing system, lightning protection and grounding system, cabinet system, and interior decoration system.

Target Audience

Those who are interested in Data Center Facility technologies.

Content

The HCIA-Data Center Facility V2.0 Certification Exam covers:
l EHS Introduction
l Data Center Facility Knowledge
l Basic Knowledge of Power Distribution
l Basic Knowledge of UPS
l Basic Knowledge of Huawei DC Power Systems
l Basic Knowledge of Batteries
l Air Conditioning System Introduction
l Basic Knowledge of Precison Air Conditioners in Data Centers
l Basic Knowledge of Monitoring Systems
l Functions and Features of Monitoring Systems
l Introduction to Other Systems of Data Center Facility

Certification Exam

Exam policy: The training is optional. **Prerequisites:** None.

Exam Code	Name	Expense	Duration	Language
H12-411	HCIA-Data Center Facility	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-Data Center Facility	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-Data Center Facility V2.0 Exam Outline
- **Training Material:** HCIA-Data Center Facility V2.0 Training Material
- **Mock Exam:** HCIA-Data Center Facility V2.0 Mock Exam

HCIP-Data Center Facility Deployment

Training and certificating senior engineers who need to perform deployment and system commissioning for Huawei data center infrastructure products.

Capabilities to be Certified

You will be able to have a basic command of Huawei modular data center solution, power distribution system solution, cooling system solution, and monitoring system solution, and be able to work as a pre-sales engineer, deployment and commissioning engineer, and solution engineer for data center infrastructure.

Knowledge to Learn

Huawei modular data center Fusion Module series products, Huawei UPS and precision PDC series products, Huawei data center energy storage products, Huawei data center smart cooling products, and Huawei data center DCIM system products.

Target Audience

Pre-sales engineer, Deployment and commissioning engineer, Solution engineer for data center infrastructure, Personnel who want to obtain HCIP-DCF Deployment certification.

Content

HCIP-Data Center 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 center Fusion Module series products, Huawei UPS and precision PDC series products, Huawei data center energy storage products, Huawei data center smart cooling products, and Huawei data center DCIM system products. Candidates need to be familiar with Huawei modular data center solution, power distribution system solution, cooling system solution, and monitoring system solution.
Knowledge Content:
Introduction to Huawei Data Center Infrastructure(2%), Introduction to Modular Data Center Solution FusionModule2000 and 5000(5%), Introduction to Prefabricated All-in-One Data Center Solution FusionDC1000(3%), Introduction to Smart Mini and Small Data Center Solution FusionModule500 and 800(3%), Integrated UPS Introduction(3%), FusionModule2000 Installation(5%), Application of VRLA Batteries(3%), Huawei SmartLi Introduction, Installation, and Commissioning(3%), UPS2000 Product Introduction(3%), UPS2000 Installation(2%), UPS2000 LCD Operations and Commissioning(3%), UPS5000 Product Introduction(7%), UPS5000 Installation(2%), UPS5000 LCD Operations and Commissioning(8%), PDU8000 Modular PDF Introduction(3%), Introduction to Data Center Cooling Solutions(3%), Introduction to Huawei Air-Cooled Precision Air Conditioner(3%), Introduction to Huawei Chilled Water Precision Air Conditioners(3%), Introduction to the Huawei Modular Indirect Evaporative Cooling System(2%), NetCol5000-A042 Installation and Commissioning(9%), NetCol8000-C (070-260) Installation and Commissioning(3%), NetCol8000-E220 Installation and Commissioning(2%), ECC800-Pro Introduction(6%), Huawei DCIM Management Tool Introduction(6%), Huawei DCIM Product Introduction(8%).

Certification Exam

Prerequisites: It is recommended that you learn HCIA-Data Center Facility in advance.

Exam Code	Name	Expense	Duration	Language
H12-425	HCIP-Data Center Facility Deployment	US$160	90 minutes	English/Chinese

Recertification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Data Center Facility Deployment	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-Data Center Facility Deployment V1.0 Exam Outline
- **Training Material:** HCIP-Data Center Facility Deployment V1.0 Training Material
- **Mock Exam:** HCIP-Data Center Facility Deployment V1.0 Mock Exam

HCIE-Data Center Facility Design

Training and certificating of architects and experts who are capable of independently planning and designing in the field of data center facility.

Capabilities to be Certified

Have the data center facility design consulting and planning capabilities, and the planning and design capabilities of each subsystem of the data center facility.

Knowledge to Learn

Deep learning data center planning consulting business process, the evaluation model tools, site selection report , feasibility study report, power supply system planning and design, refrigeration system planning and design, DCIM system planning and design.

Target Audience

Data Center infrastructure design engineer, Data Center infrastructure design engineer, Project manager of the Data Center construction unit, Personnel who want to obtain HCIE-Data Center Facility Design certification.

Content

HCIE-Data Center Facility Design V1.0 exam covers: Data Center Infrastructure Consulting and Planning, Power Distribution System Planning, UPS System Planning, Case Analysis and Optimization of Data Center Power Supply and Distribution Architecture, Data Center Cooling System Planning, Data Center Air Conditioner Terminal System Configuration and Load Calculation, Chilled Water Air Conditioner System Configuration, and Data Center Cooling System Energy Saving Solution and DCIM system planning, etc.

Certification Exam

Prerequisites: It is recommended that you learn HCIP-Data Center Facility Deployment in advance. Five years relevant work experience is suggested.

Exam Code	Name	Expense	Duration	Language
H12-461	HCIE-Data Center Facility Design(Written)	US$300	90 minutes	English/Chinese
H12-462	HCIE-Data Center Facility Design(Lab)	US$1200	480 minutes	English/Chinese
H12-463	HCIE-Data Center Facility Design(Interview)		60 minutes	English/Chinese

Recertification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIE-Data Center Facility Design	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Data Center Facility Design V1.0 Exam Outline
- **Training Material:** HCIE-Data Center Facility Design V1.0 Training Material
- **Mock Exam:** HCIE-Data Center Facility Design V1.0 Mock Exam

HCIA-Datacom

Training and certificating engineers who acquires basic knowledge and skills commonly used in datacom field.

Capabilities to be Certified

HCIA-Datacom certified engineers have a basic knowledge in the general technologies involved in small-sized enterprise networks and possess the basic network design, implementation, O&M and network automation abilities.

Knowledge to Learn

Routing and switching principles, WLAN basic principles, network security basic knowledge, network O&M basic knowledge, SDN and network automation basic knowledge.

Taget Audience

Those who want to achieve HCIA-Datacom certification.
Those who are interested in datacom.

Prerequisites

None

Content

The HCIE-Intelligent Computing exam includes: Routing and switching principles, WLAN basic principles, network security basic knowledge, network O&M basic knowledge, SDN and network automation basic knowledge.

Certification Exam

Exam Code	Name	Expense	Duration	Language
H12-811	HCIA-Datacom	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIA-Datacom	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-Datacom V1.0 Exam Outline
- **Training Material:** HCIA-Datacom V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-Datacom V1.0 Mock Exam

HCIP-Datacom-Advanced Routing & Switching Technology

Training and certificating senior engineers who possess advanced routing and switching knowledge and advanced skills in the datacom field.

Capabilities to be Certified

Passing HCIP-Datacom-Advanced Routing & Switching Technology V1.0 certificate indicates that you are competent for the position of network engineer in a medium-or large-sized enterprise, be capable of planning and designing, deploying and maintaining, and locating faults on a medium-or large-sized enterprise network by using Huawei datacom devices, and design solutions with high security, availability, and reliability for network applications.

Knowledge to Learn

Routing basics, OSPF, IS-IS, BGP, routing and traffic control, Ethernet switching technology, multicast, IPv6, network security, network reliability, network service and management, WLAN, and network solutions. Advanced IGP features, advanced BGP features, IPv6 routing, advanced Ethernet technologies, MPLS technologies, Network O&M, Network Troubleshooting, and Network Cutover.

Taget Audience

Those who want to achieve HCIP-Datacom-Advanced Routing & Switching Technology. Those who want to be datacom senior engineer.

Prerequisites

It is recommended that you learn HCIA-Datacom in advance.

Content

The HCIP-Datacom-Core Technology V1.0 exam covers the general core knowledge of all scenarios in the Data communication field, routing basics(3%), OSPF(16%), IS-IS(8%), BGP(17%), routing and traffic control(10%), Ethernet switching technology(7%), multicast(9%), IPv6(3%), network security(9%), network reliability(8%), network service and management(2%), WLAN(6%), and network solutions(2%).

The HCIP-Datacom-Advanced Routing & Switching Technology V1.0 exam covers advanced routing and switching knowledge in the data communication field, including advanced IGP features(17%), advanced BGP features(10%), IPv6 routing(20%), advanced Ethernet technologies(10%), MPLS technologies(19%), Network O&M(7%), Network Troubleshooting(10%), and Network Cutover(7%).

Certification Exam

Exam Policy: You need to pass the two exams to obtain certificate.

Prerequisites: It is recommended that you learn HCIA-Datacom in advance.

Exam Code	Name	Expense	Duration	Language
H12-821	HCIP-Datacom-Core Technology	US$300	90 minutes	English/Chinese
H12-831	HCIP-Datacom-Advanced Routing & Switching Technology	US$180	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIP-Datacom-Advanced Routing & Switching Technology	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Datacom-Advanced Routing & Switching Technology V1.0 Exam Outline
- **Training Material:** HCIP-Datacom-Advanced Routing & Switching Technology V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Datacom-Advanced Routing & Switching Technology V1.0 Mock Exam

HCIP-Datacom-Network Automation Developer

Training and certificating senior engineers with network automation development knowledge and skills in datacom field.

Capabilities to be Certified

HCIP-Datacom-Network Automation Developer certified engineers have a basic knowledge in the general technologies related to network automation development and are able to proceed enterprise network automatic implementation, development, O&M by using Huawei datacom equipment.

Knowledge to Learn

Routing basics, OSPF, IS-IS, BGP, routing and traffic control, Ethernet switching technology, multicast, IPv6, network security, network reliability, network service and management, WLAN, and network solutions. Python Programming Basics, Git, Network Devices' Open Programmability (SSH, SNMP, NETCONF, YANG, Telemetry etc.), iMaster NCE Northbound Openness Principles (RESTful, HTTP, HTTPS etc.).

Taget Audience

Those who want to achieve HCIP-Datacom-Network Automation Developer certification. Those who want to be network automation developer.

Prerequisites

It is recommended that you learn HCIA-Datacom in advance.

Content

The HCIP-Datacom-Core Technology V1.0 exam covers the general core knowledge of all scenarios in the Data communication field, routing basics(3%), OSPF(16%), IS-IS(8%), BGP(17%), routing and traffic control(10%), Ethernet switching technology(7%), multicast(9%), IPv6(3%), network security(9%), network reliability(8%), network service and management(2%), WLAN(6%), and network solutions(2%).

The HCIP-Datacom-Network Automation Developer V1.0 exam covers Programming basics(20%), Huawei device openness and programmability(50%), iMaster NCE northbound openness(25%) and iMaster NCE service openness and programmability(5%).

Certification Exam

Exam Policy: You need to pass the two exams to obtain certificate.

Prerequisites: It is recommended that you learn HCIA-Datacom in advance.

Exam Code	Name	Expense	Duration	Language
H12-821	HCIP-Datacom-Core Technology	US$300	90 minutes	English/Chinese
H12-881	HCIP-Datacom-Network Automation Developer	US$180	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIP-Datacom-Network Automation Developer	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Datacom-Network Automation Developer V1.0 Exam Outline
- **Training Material:** HCIP-Datacom-Network Automation Developer V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Datacom-Network Automation Developer V1.0 Mock Exam

HCIP-Datacom-Campus Network Planning and Deployment

Training and certificating senior engineers with planning, deployment, O&M, and optimization capabilities in large-, medium-, and small-sized enterprise campus network scenarios.

Capabilities to be Certified

Passing the HCIP-Datacom-Campus Network Planning and Deployment certification will indicate that you:1) understand and master traditional campus network technologies, Huawei CloudCampus solution, network admission control, free mobility, VXLAN, BGP EVPN, campus network virtualization, and Campus WLAN planning and design and CampusInsight intelligent O&M. 2) are qualified for the positions of enterprise campus network scenarios (account manager, project manager, pre-sales engineer, post-sales engineer, and O&M engineer) and be able to use Huawei datacom devices to independently plan, design, deploy, and maintain enterprise campus networks.

Knowledge to Learn

Traditional campus network technologies, Huawei CloudCampus solution, network admission control, free mobility, VXLAN, BGP EVPN, campus network virtualization, and Campus WLAN planning and design and CampusInsight intelligent O&M.

Taget Audience

Those who wants to be datacom campus network senior engineer, Those who wants to achieve HCIP-Datacom-Campus Network Planning and Deployment certification.

Prerequisites

It is recommended that you learn HCIA-Datacom in advance.

Content

The HCIP-Datacom-Core Technology V1.0 exam covers the general core knowledge of all scenarios in the Data communication field, routing basics(3%), OSPF(16%), IS-IS(8%), BGP(17%), routing and traffic control(10%), Ethernet switching technology(7%), multicast(9%), IPv6(3%), network security(9%), network reliability(8%), network service and management(2%), WLAN(6%), and network solutions(2%).
The HCIP-Datacom-Campus Network Planning and Deployment V1.0 Certification Exam covers:
Campus Network and Common Technologies(10%), Campus Network Technology Details(40%), Huawei Campus Network Solution Overview(5%), Campus Network Planning, Design, and Deployment(40%), Intelligent Campus Network O&M(5%)

Certification Exam

Exam Policy: You need to pass the two exams to obtain certificate.

Prerequisites: It is recommended that you learn HCIA-Datacom in advance.

Exam Code	Name	Expense	Duration	Language
H12-821	HCIP-Datacom-Core Technology	US$300	90 minutes	English/Chinese
H12-841	HCIP-Datacom-Campus Network Planning and Deployment	US$180	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIP-Datacom-Campus Network Planning and Deployment	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Datacom-Campus Network Planning and Deployment V1.0 Exam Outline
- **Training Material:** HCIP-Datacom-Campus Network Planning and Deployment V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Datacom-Campus Network Planning and Deployment V1.0 Mock Exam

HCIP-Datacom-SD-WAN Planning and Deployment

Training and certificating senior engineers with planning, deployment, O&M, and optimization capabilities in SD-WAN scenarios.

Capabilities to be Certified

Passing the HCIP-Datacom-SD-WAN Planning and Deployment V1.0 certification will indicate that you: 1) understand and master Enterprise WAN interconnection scenario, GRE technology, IPsec VPN technology, QoS basic principles, HA technology, SD-WAN deployment, SD-WAN management and O&M, SD-WAN networking principles and planning, SD-WAN application experience, SD-WAN security, SD-WAN intelligent O&M, and SD-WAN Practice 2) are qualified for the positions of SD-WAN (account manager, project manager, pre-sales engineer, post-sales engineer, and O&M engineer). You are capable of using Huawei datacom devices to design, deploy, and O&M of SD-WAN networks.

Knowledge to Learn

Enterprise SD-WAN scenario, GRE technology, IPsec VPN technology, QoS basic principles, HA technology, SD-WAN deployment, SD-WAN management and O&M, SD-WAN networking principles and planning, SD-WAN application experience, SD-WAN security, SD-WAN intelligent O&M.

Taget Audience

Those who wants to be datacom SD-WAN senior engineers, Those who wants to achieve the HCIP-Datacom-SD-WAN Planning and Deployment Certification.

Prerequisites

It is recommended that you learn HCIA-Datacom in advance.

Content

The HCIP-Datacom-Core Technology V1.0 exam covers the general core knowledge of all scenarios in the Data communication field, routing basics(3%), OSPF(16%), IS-IS(8%), BGP(17%), routing and traffic control(10%), Ethernet switching technology(7%), multicast(9%), IPv6(3%), network security(9%), network reliability(8%), network service and management(2%), WLAN(6%), and network solutions(2%).

The HCIP-Datacom-SD-WAN Planning and Deployment V1.0 exam covers high-level knowledge about enterprise WAN interconnection scenarios in the data communications field, enterprise WAN interconnection scenarios, GRE technologies, IPsec VPN technologies, basic QoS principles, HA technologies, SD-WAN deployment, SD-WAN management and O&M, SD-WAN networking principles and planning, SD-WAN application experience, SD-WAN security, SD-WAN intelligent O&M, and SD-WAN design practices.

Certification Exam

Exam Policy: You need to pass the two exams to obtain certificate.

Prerequisites: It is recommended that you learn HCIA-Datacom in advance.

Exam Code	Name	Expense	Duration	Language
H12-821	HCIP-Datacom-Core Technology	US$300	90 minutes	English/Chinese
H12-871	HCIP-Datacom-SD-WAN Planning and Deployment	US$180	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Validity of Recertification	Recertification Rule	Start Date of Validity
HCIP-Datacom-SD-WAN Planning and Deployment	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-Datacom-SD-WAN Planning and Deployment V1.0 Exam Outline
- **Training Material:** HCIP-Datacom-SD-WAN Planning and Deployment V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-Datacom-SD-WAN Planning and Deployment V1.0 Mock Exam

HCIA-Routing & Switching

Training and certificating engineers with small and medium-sized enterprise network deployment and O&M capabilities

Capabilities to be certified

A basic understanding of small and medium-sized networks, including general network technologies, and the ability to assist the design of small and medium-sized networks, and implement the designs using Huawei routing and switching devices.

Knowledge to Learn

Network fundamentals, Basic connection methods of popular networks, Basic network construction, Troubleshooting of common network faults, Installation and commissioning of Huawei routing and switching devices.

Target Audience

- ICT professionals or students interested in datacom network technologies.

Content

The HCIA-Routing & Switching V2.5 exam covers basic IP network connectivity, TCP/IP technologies, Ethernet technologies such as STP and RSTP, VLAN and Link Aggregation and their implementation within Huawei switches. Routing principles and OSPF routing protocol for IPv4 and IPv6 networks, WAN technologies, IP based security, network management as well as IPv4 and IPv6 based application services, MPLS and SR principles.
IP Network Principles(12%), LAN Technologies(24%), WAN Technologies(5%), Routing Technologies(21%), Network Security(5%), Network Management(5%), IPv6 Networks(25%), MPLS and Segment Routing(3%).

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H12-211	HCIA-Routing & Switching	US$200	90 minutes	English/Chinese/Spanish/French/Portuguese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-Routing & Switching	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline**: HCIA-Routing & Switching V2.5 Exam Outline
- **Training Material**: HCIA-Routing & Switching V2.5 Training Material and Lab Guide
- **Mock Exam**: HCIA-Routing & Switching V2.5 Mock Exam
- **Online Course**: HCIA-Routing & Switching V2.5 course

HCIP-Routing & Switching

Training and certificating senior engineers with independent planning, deployment and operation capabilities of small and medium-sized networks in the data communication field.

Capabilities to be Certified

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.

Knowledge to Learn

Basic knowledge of networks, principles of switches and routers, TCP/IP protocol clusters, routing protocols, access control, eSight, Agile Controller product introduction, basic knowledge of SDN, VXLAN, and NFV, and PDIOI.

Target Audience

- ICT professionals or students interested in datacom network technologies.

Content

- The HCIP-Routing & Switching-IERS exam covers OSPF(28%), ISIS(4%) and BGP routing protocols(26%), Route Control(14%), IP Multicast protocols(16%), and Eth-trunk(3%), Advanced Features Switches(2%), RSTP, MSTP and other two layer network technologies(7%).
- The HCIP-Routing & Switching-IENP exam covers MPLS and MPLS VPN(26%), DHCP(7%), VRRP, BFD, Mirroring technologies(3%) and Agile Controller, eSight Product Features(11%), IP QoS(21%), Huawei Firewall Technology Basis(15%) and SDN, VXLAN, NFV new technologies(17%).
- The HCIP-Routing & Switching-IEEP exam covers PDIOI(Network Planning(6%), Network Design(28%), Network Implementation(12%), Network Maintenance(10%), Network Troubleshooting(27%), Network Optimization(7%)) and Network Migration(10%).

Certification Exam

Exam Policy: You need to pass the three exams to obtain certificate.
Prerequisites: It is recommended that you learn HCIA-Routing & Switching in advance.

Exam Code	Name	Expense	Duration	Language
H12-221	HCIP-Routing & Switching-IERS	US$160	90 minutes	English/Chinese/Spanish/French
H12-222	HCIP-Routing & Switching-IENP	US$160	90 minutes	English/Chinese/Spanish/French
H12-223	HCIP-Routing & Switching-IEEP	US$160	90 minutes	English/Chinese/Spanish/French

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Routing & Switching	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result.

Learning Materials

- **Exam Outline:** HCIP-Routing & Switching V2.5 Exam Outline
- **Training Material:** HCIP-Routing & Switching V2.5 Training Material and Lab Guide
- **Mock Exam:** HCIP-Routing & Switching V2.5 Mock Exam
- **Online Course:** HCIP-Routing & Switching V2.5 Course

HCIP-Routing & Switching(Fast Track)

Training and certificating senior engineers with independent planning, deployment and operation capabilities of small and medium-sized networks in the data communication field.

Capabilities to be Certified

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.

Knowledge to Learn

Basic knowledge of networks, principles of switches and routers, TCP/IP protocol clusters, routing protocols, access control, eSight, Agile Controller product introduction, basic knowledge of SDN, VXLAN, and NFV, and PDIOI.

Target Audience

- ICT professionals or students interested in datacom network technologies.

Content

- The HCIP-Routing & Switching-IERS exam covers OSPF(28%), ISIS(4%) and BGP routing protocols(26%), Route Control(14%), IP Multicast protocols(16%), and Eth-trunk(3%), Advanced Features Switches(2%), RSTP, MSTP and other two layer network technologies(7%).
- The HCIP-Routing & Switching-IENP exam covers MPLS and MPLS VPN(26%), DHCP(7%), VRRP, BFD, Mirroring technologies(3%) and Agile Controller, eSight Product Features(11%), IP QoS(21%), Huawei Firewall Technology Basis(15%) and SDN, VXLAN, NFV new technologies(17%).
- The HCIP-Routing & Switching-IEEP exam covers PDIOI(Network Planning(6%), Network Design(28%), Network Implementation(12%), Network Maintenance(10%), Network Troubleshooting(27%), Network Optimization(7%)) and Network Migration(10%).

Certification Exam

Prerequisites: It is recommended that you learn HCIA-Routing & Switching in advance.

Exam Code	Name	Expense	Duration	Language
H12-224	HCIP-Routing & Switching(Fast Track)	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Routing & Switching (Fast Track)	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-Routing & Switching V2.5 Exam Outline
- **Training Material:** HCIP-Routing & Switching V2.5 Training Material
- **Mock Exam:** HCIP-Routing & Switching V2.5 Mock Exam
- **Online Course:** HCIP-Routing & Switching V2.5 Course

HCIE-Routing & Switching

Training and certificating network technology experts with planning, design, deployment, operation and optimization capabilities of large and medium-sized complex network in the data communication field.

Capabilities to be Certified

A comprehensive and thorough understanding of large networks, including technologies used in complex large and medium-sized networks, and the ability to design various enterprise networks independently and implement those designs using Huawei routing and switching devices.

Knowledge to Learn

Interconnecting different networks and various routers and switches, resolving complex connection problems, using technical solutions to increase bandwidth, shorten the response time, improve performance to its maximum, enhance security, and support global applications, Troubleshooting complex network faults.

Target Audience

- ICT professionals or students interested in datacom network technologies.

Content

HCIE-Routing & Switching V3.0 exam covers Network Planning, Design, Implementation, Maintenance, Trouble-Shooting, Optimization, Cut-over , etc. The current version of the LAB EXAM is conducted on the eNSP simulator, and the software version is eNSP V100R002C00B500.
Written Exam: Layer 2 Technologies(12%), IPv4/v6 Unicast(52%), MPLS VPN(10%), IPv4/v6 Multicast(6%), Network Security(5%), QoS(5%), Network Management(2%), Features(3%), SDN(15%).
Lab Exam: Layer 2 Technologies(12%), IPv4/v6 Unicast(41%), MPLS VPN(26%), IPv4/v6 Multicast(4%), Network Security(2%), QoS(7%), Network Management(2%), Features(6%).
Interview Exam: Layer 2 Technologies(12%), IPv4/v6 Unicast(36%), MPLS VPN(28%), IPv4/v6 Multicast(4%), Network Security(3%), QoS(6%), Network Management(3%), Features(6%), SDN(2%).

Certification Exam

Exam Policy: You can directly pass the written exam, lab exam, and interview to obtain certificate.
Prerequisites: It is recommended that you learn HCIP-Routing & Switching in advance. Five years' working experience in related fields is a plus.

Exam Code	Name	Expense	Duration	Language
H12-261	HCIE-Routing & Switching (Written)	US$300	90 minutes	English/Chinese/Spanish/French
H12-262	HCIE-Routing & Switching (Lab)	US$1200	480 minutes	English/Chinese
H12-263	HCIE-Routing & Switching (Interview)		60 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIE-Routing & Switching	Two Years + one year grace period	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • Pass any exam of the same level certification which from the ICT Infrastructure category.	Two years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIE-Routing & Switching V3.0 Exam Outline
- **Training Material:** HCIE-Routing & Switching V3.0 Training Material and Lab Guide
- **Mock Exam:** HCIE-Routing & Switching V3.0 Mock Exam
- **Online Course**: HCIE-Routing & Switching V3.0 Course

HCIA-WLAN

Train and certified engineers who have mastered basic WLAN technologies and are capable of deploying and maintaining WLAN products.

Capabilities to be Certified

Master the basics of WLAN technology, have a clear understanding of the WLAN architecture and the functions of each related component, be familiar with WLAN configuration and know how to design, deploy and maintain a WLAN network.

Knowledge to Learn

Basics and working principles of WLAN technologies; WLAN product features and networking solutions; WLAN access security and related configurations; WLAN Deployment Overview.

Target Audience

ICT professionals or students interested in WLAN technologies.

Content

HCIA-WLAN V3.0 covers basic WLAN knowledge, including basic WLAN knowledge, WLAN frequency band, IEEE 802.11 protocol, 802.11 MAC architecture, 802.11 physical layer technology, WLAN networking, CAPWAP basic principles, and data forwarding. Wi-Fi 6 technology, WLAN product introduction, AP initial configuration, WLAN online configuration, and WLAN access authentication. WLAN O&M and troubleshooting, antenna technology, and WLAN project deployment.
WLAN Overview(3%), WLAN Technology Basics(15%), WLAN Networking Model(7%), Introduction to Wi-Fi 6 Technologies and Products(5%), Working Principles of WLAN(25%), WLAN access authentication(5%), WLAN Access Configuration(20%), WLAN Troubleshooting(10%), WLAN Antenna Technology(5%), WLAN Deployment Overview(5%).

Certification Exam

Exam Policy: The training is optional. **Prerequisites:** None.

Exam Code	Name	Expense	Duration	Language
H12-311	HCIA-WLAN	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-WLAN	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-WLAN V2.0 Exam Outline
- **Training Material:** HCIA-WLAN V2.0 Training Material
- **Mock Exam:** HCIA-WLAN V2.0 Mock Exam

HCIP-WLAN

Training and certificating senior engineers who are capable of planning, designing, deploying, operating, and optimizing the WLAN of large and medium-sized enterprises with Huawei WLAN equipments.

Capabilities to be Certified

A comprehensive and thorough understanding of Huawei WLAN products and technologies, and the ability to use WLAN product to plan, design, deploy and optimize WLAN of large and medium-sized enterprises.

Knowledge to Learn

Constructing WLAN of large and medium-sized enterprises considering of security, high reliability, Mesh, Huawei BYOD(Bring You Own Device) solution, as well as general WLAN planning, detailed WLAN planning, WLAN design and WLAN optimization.

Target Audience

- ICT professionals or students interested in wireless local area network (WLAN) technologies.

Content

The HCIP-WLAN- CEWA exam includes but not limited to the following: Large-Scale WLANs, WLAN Radio Management, WLAN WIDS, Deployment of WLAN Secure Connectivity Services, Interconnecting the Agile Controller-Campus with Servers, WLAN Inter-AC Roaming, High WLAN Reliability, Building a Wireless Mesh Network.
Building a Foundation Enterprise WLAN(21%), Building a Security Enterprise WLAN(28%), Building a Movable Enterprise WLAN(13%), Building a Reliable Enterprise WLAN(15%), Building an Internet Enterprise WLAN(23%).

The HCIP-WLAN- POEW exam includes but not limited to the following: WLAN Planning and Optimization, Data Planning, WLAN Architecture Design, Security, Indoor Distributed WLAN, WLAN WDS Mesh, Roaming, WLAN Optimization Overview, WLAN Interference Optimization, Introduction to WLAN Tester 2. 0, Huawei WLAN High-Density Stadium Solution.
General WLAN Planning(15%), WLAN Site Survey and Infrastructure Planning(24%), WLAN Indoor Settled and Distributed Coverage(15%), WLAN Outdoor Coverage Planning(13%), WDS.MESH & Roaming Planning(11%), WLAN Design for Enterprises(10%), WLAN Optimization(12%).

Certification Exam

Exam Policy: The training is optional. You need to take the two exams to obtain certificate.
Prerequisites: It is recommended that you learn HCIA-WLAN in advance.

Exam Code	Name	Expense	Duration	Language
H12-321	HCIP-WLAN- CEWA	US$160	90 minutes	English/Chinese
H12-322	HCIP-WLAN- POEW	US$160	90minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-WLAN	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-WLAN V1.0 Exam Outline
- **Training Material:** HCIP-WLAN V1.0 Training Material
- **Mock Exam:** HCIP-WLAN V1.0 Mock Exam

HCIA-Security

Training and certificating engineers who are capable of collaborating in the design, deployment, and operation of small and medium-sized enterprise network security architecture.

Capabilities to be Certified

Engineers have the basic ability to configure and maintain small and medium-sized enterprise information security solutions, and have the ability to achieve basic network security for SMBs and meet the basic needs of a variety of security applications.

Knowledge to Learn

Information security concept, information security standards and specifications, common attack methods, basic operating system security, firewall security policy, firewall NAT technology, firewall hot standby technology, intrusion prevention technology, cryptography foundation, PKI mechanism, IPSec/SSL VPN technology , data monitoring and analysis, electronic forensics technology and emergency response technology.

Target Audience

Information security operation and maintenance engineer Network security junior engineer who hopes to have information security capabilities.

Content

The HCIA-Security V3.0 exam covers information security and security overview(20%), operation system and Host security(10%), network security basis(30%), Application of Encryption and Decryption(20%), Safety operation and analysis basis(20%), etc.

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H12-711	HCIA-Security	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-Security	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-Security V3.0 Exam Outline
- **Training Material:** HCIA-Security V3.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-Security V3.0 Mock Exam
- **Online Course:** HCIA-Security V3.0 Course

HCIP-Security

Training and certificating senior engineers with architecture design, deployment and O&M capabilities of medium and large enterprise network security.

Capabilities to be Certified

Master Huawei's network security technologies (including network perimeter security, application security, terminal security, etc.), and have the architecture design, deployment, and operation and maintenance capabilities of enterprise network security, to achieve overall network wireless intrusion and DDoS/APT attack defense, and to protect enterprise information assets.

Knowledge to Learn

High reliability of firewalls, advanced VPN applications, network QoS management, application security protection technologies, cloud security technologies, terminal security system deployment, BYOD mobile office systems, wireless network security technologies, etc.

Target Audience

- People who want to be senior engineers in network security.

Content

- HCIP-Security-CISN exam covers network security device management(14%), firewall intelligent routing(20%), firewall high availability(13%), VPN technology and application(37%), firewall bandwidth management(8%) and virtual firewall technology(8%).
- HCIP-Security-CSSN exam covers content security filtering technology(25%), Web security(20%), intrusion detection and prevention technology(15%), anti-virus technology(10%), network attack prevention technology(20%), big data and cloud security technology(10%).
- HCIP-Security-CTSS exam covers the concept of terminal security, Agile Controller-Campus system installation planning and deployment, terminal authentication system, WLAN network security technology, terminal security troubleshooting and security system operation and maintenance.
  Terminal Security Overview(5%), WLAN Security Technology(45%), Terminal Security System Deployment(10%), User Authentication Technology(30%), Security System Operation and Maintenance(10%)

Certification Exam

Exam Policy: The training is optional. You need to take the three exams to obtain certificate.
Prerequisites: It is recommended that you learn HCIA-Security in advance.

Exam Code	Name	Expense	Duration	Language
H12-721	HCIP-Security-CISN	US$160	90 minutes	English/Chinese
H12-722	HCIP-Security-CSSN	US$160	90 minutes	English/Chinese
H12-723	HCIP-Security-CTSS	US$160	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Security	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-Security V3.0 Exam Outline
- **Training Material:** HCIP-Security V3.0 Training Material
- **Mock Exam:** HCIP-Security V3.0 Mock Exam

HCIA-SDN

Training and certificating engineers with infrastructure deployment and O&M capabilities of SDN network.

Capabilities to be Certified

The basic understanding of cloud SDN architecture and technologies, master Huawei cloud SDN hardware and software basic operation and maintenance, and with the ability to deploy and maintain the cloud SDN network.

Knowledge to Learn

Cloud SDN knowledge basis, Huawei cloud SDN products hardware installation and maintenance, VxLAN and EVPN Principles and Configuration cloud SDN basic operation and maintenance.

Target Audience

- ICT Professionals or students interested in SDN technologies.

Content

The HCIA-SDN exam covers datacom basics, SDN Architecture and Ecosystem, Key Technologies in Network Future such as Concepts and ONF and IETF Standards and SDN Products, SDN Layer 2 and Layer 3 Networking Principles, OpenFlow Protocol and Netconf Protocol and RestFul Protocol.
SDN architecture and industrial ecosystem(15%), HUAWEI SDN solutions and products(15%), SDN Layer 2 Networking Principles (DC)(20%), SDN Layer 3 Networking Principles (DC)(15%), SDN Interface Protocols and Principles (DC)(25%), SDN VxLAN Overlay Introduction(10%).

Certification Exam

Exam policy: The training is optional.
Prerequisites: None

Exam Code	Name	Expense	Duration	Language
H31-611	HCIA-SDN	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-SDN	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-SDN V1.0 Exam Outline
- **Training Material:** HCIA-SDN V1.0 Training Material
- **Mock Exam:** HCIA-SDN V1.0 Mock Exam

HCIA-Transmission

Training and certificating engineers who are capable of independently deploying and operating transmission networks with Huawei MSTP equipment.

Capabilities to be Certified

You have the basic knowledge of transmission network, and the ability to deliver and maintain Huawei MSTP equipment independently.

Knowledge to Learn

SDH Principles, MSTP System Overview, MSTP Protection Schemes, Service Configuration of MSTP, Ethernet Principles, Ethernet Service Overview, WDM Principles and OTN Protocols.

Target Audience

- ICT Professionals or students interested in Transmission Technologies.

Content

The HCIA-Transmission curriculum includes the following: Principles of Synchronous Digital Hierarchy (SDH), Wavelength-Division Multiplexing (WDM) Principles, and Optical Transmission Network (OTN) Principles, Multiplex Section Protection (MSP) and Subnetwork Connection Protection (SNCP), MSTP Hardware, and service configuration of MSTP equipment, U2000 Introduction and its basic operations.
SDH Principles(15%), MSTP System Overview(10%), MSTP Protection Schemes(15%), Ethernet Principles(10%), Ethernet Service Overview(10%), U2000 Overview(15%), WDM Principles(12%), OTN Protocols(13%).

Certification Exam

Exam Policy: The training is optional. **Prerequisites:** None.

Exam Code	Name	Expense	Duration	Language
H31-311	HCIA-Transmission	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-Transmission	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-Transmission V2.0 Exam Outline
- **Training Material:** HCIA-Transmission V2.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-Transmission V2.0 Mock Exam
- **Online Course**: HCIA-Transmission V2.0 Course

HCIP-Transmission

Training and certificating senior engineers who are capable of deploying and operating delivery network with Huawei transmission equipment.

Capabilities to be Certified

The ability to commission, configure, maintain, perform tests on Huawei transmission equipment, and handle common faults.

Knowledge to Learn

Basic knowledge of NG WDM Product, such as Product Introduction, System Commissioning, Service Configuration, Troubleshooting and so on; MSTP advanced topics, such ECC, Clock Protection; and some new features of transmission field, such as OD/FD and MS-OTN.

Target Audience

ICT Professionals or students interested in Transmission Technologies.

Content

The HCIP-Transmission V2.0 exam includes a range of knowledge of NG WDM System Introduction(6%), NG WDM Equipment Networking and Application(6%), NG WDM Optical and Electrical Layer Grooming(6%), NG WDM Common Data Configuration(3%), NG WDM Optical Layer Service Configuration(3%), NG WDM Electrical Layer Service Configuration(3%), NG WDM System Commissioning(6%), NG WDM System Common Indicator Test(3%), NG WDM Protection Topic(6%), NG WDM Equipment Routine Maintenance(6%), NG WDM Alarm Signal Flow(6%), NG WDM System Troubleshooting(3%), Optical Doctor (OD) System Special Topic(2%), Fiber Doctor (FD) System Special Topic(2%), NG WDM Packet Technology Introduction(3%), MS-OTN Networking and Service Introduction(3%), OptiX OSN 1800V Packet Service Configuration(7%), New Transmission Technologies(1%), MSTP Technology Topic - Clock Protection(3%), MSTP Technology Topic - ECC Maintenance and Pointer Adjustment(3%), MSTP Technology Topic - PCM Technology(4%), MSTP Board Replacement(3%), Discrete Service Analysis and Handling(2%), Ethernet Service Common Indicator Test(2%), MSTP Equipment Troubleshooting(3%), ASON Intelligent Optical Network(5%).

Certification Exam

Exam Policy: The training is optional.
Prerequisites: It is recommended that you learn HCIA-Transmission in advance.

Exam Code	Name	Expense	Duration	Language
H31-341	HCIP-Transmission	US$300	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Transmission	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIP-Transmission V2.0 Exam Outline
- **Training Material:** HCIP-Transmission V2.0 Training Material
- **Mock Exam:** HCIP-Transmission V2.0 Mock Exam

HCIA-Access

Training and certificating engineers who are capable of using access network devices for deployment, basic service commissioning, and routine O&M.

Capabilities to be Certified

Master the basic principles and service configurations of access networks. Have the ability to commission Huawei access network devices and configure basic services, plan ODN networks, and troubleshoot basic faults.

Knowledge to Learn

Access network overview, xPON principles, Network communication principles, Data service configuration, ODN engineering implementation and maintenance, and NMS basics.

Target Audience

People interested in Access.

Content

The HCIA-Access V2.5 exam covers: Access Network Overview(3%), Network Communication Principles(18%), xPON & xDSL Principles(27%), PPPoE&DHCP&VLAN Principles(21%), Data service basics& Data Service Configuration(16%), ODN Engineering Implementation and Maintenance(10%) & Network Management Basics(5%).

Certification Exam

Exam Policy: The training is optional. **Prerequisites:** None.

Exam Code	Name	Expense	Duration	Language
H35-210	HCIA-Access	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIA-Access	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertification result

Learning Materials

- **Exam Outline:** HCIA-Access V2.5 Exam Outline
- **Training Material:** HCIA-Access V2.5 Training Material and Lab Guide
- **Mock Exam:** HCIA-Access V2.5 Mock Exam
- **Online Course**: HCIA-Access V2.5 Course

HCIP-Access

Training and certificating senior engineers with independent access network planning, design, deployment, and O&M capabilities.

Capabilities to be Certified

Have the advanced knowledge and service understanding and application skills required for relevant work, and have the advanced knowledge required for the pre-sales and after-sales of Huawei access network products.

Knowledge to Learn

SIP&H.248 principles and configuration, Multicast principles and configuration, PON Network protection, PON system security features, QoS features, eSight & NCE-FAN service O&M, POL&FTTx networking planning, and Typical Troubleshooting in Access Network.

Target Audience

- People interested in Access.

Content

The HCIP-Access V2.5 exam covers: VoIP principles and configuration, PON Multicast principles and configuration, PON QoS Basics, PON Network Protection, PON System Security Protection Features, Service Configuration on eSight & NCE-FAN, POL & FTTx Planning and Design, Typical Troubleshooting in Access Network.
Networking protection(10%), VoIP Principles and Configuration(11%), Multicast Principles and Configuration(12%), QoS Basics(12%), PON Security Basics(12%), NMS service configuration(8%), POL&FTTx Planning and Design(22%), Typical Troubleshooting Cases(13%).

Certification Exam

Exam Policy: The training is optional.
Prerequisites: It is recommended that you learn HCIA-Access in advance.

Exam Code	Name	Expense	Duration	Language
H35-211	HCIP-Access	US$200	90 minutes	English/Chinese

Re-Certification Method

Certification	Period of Validity	Date of Recertification	Recertification Exam	Start Date of Validity
HCIP-Access	Three Years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the issue of recertificati on result

Learning Materials

- **Exam Outline:** HCIP-Access V2.5 Exam Outline
- **Training Material:** HCIP-Access V2.5 Training Material and Lab Guide
- **Mock Exam:** HCIP-Access V2.5 Mock Exam

HCIA-LTE

Training and certificating engineers with capability of performing routine basic maintenance on the LTE wireless network.

Capabilities to be Certified

Demonstrate the capabilities of independently performing the deployment and commissioning of Huawei LTE radio network, operations and onsite maintenance of eNodeBs, and general troubleshooting for Huawei LTE radio networks.

Knowledge to Learn

General knowledge about LTE network and the capability of LTE radio network O&M with Huawei products, aiming at standardizing entry-level skills in LTE radio network O&M.

Target Audience

- Intended for users who use Huawei Wireless products, partner engineers, staff engineers, and ICT practitioners.

Content

LTE system overview and air interface principles, Huawei LTE eNodeB product hardware and specifications, basic network configuration, operation and troubleshooting as well as equipment commissioning and deployment for LTE radio networks.
LTE System Overview(15%), eNodeB LTE Product Description(5%), MBTS GUL Field Maintenance(10%), MBTS GUL Software Commissioning(15%), LTE eRAN Automatic OMCH Establishment(3%), MBTS GUL Field Operation and Maintenance(10%), eNodeB LTE Data Introduction for Initial Configuration(10%), eNodeB LTE Initial Configuration by CME(5%), eNodeB LTE Troubleshooting(10%), eNodeB LTE TOP Alarm Handling(2%), eNodeB LTE Site Solution(15%).

Certification Exam

Exam policy: The training is optional.
Prerequisites: None

Exam Code	Name	Expense	Duration	Language
H31-411	HCIA-LTE	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-LTE	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-LTE V1.0 Exam Outline
- **Training Material:** HCIA-LTE V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIA-LTE V1.0 Mock Exam

HCIP-LTE

Training and certificating senior engineers with capability of performing routine basic maintenance on the LTE wireless network.

Capabilities to be Certified

Demonstrate the capabilities of independently performing parameter planning and configuration, routine operations and troubleshooting for Huawei LTE network.

Knowledge to Learn

Network configuration management and problem analysis and handling for Huawei LTE radio networks, aiming at standardizing professional skills in LTE radio network O&M.

Target Audience

- Intended for users who use Huawei Wireless products, partner engineers, staff engineers, and ICT practitioners.

Content

LTE air interface principles, LTE protocols and procedures, hardware specifications and networking principles, data planning, and data configuration by running MML/CME commands, operations and troubleshooting of Huawei eNodeBs.
LTE Air Interface(30%), LTE Signaling and Protocols(27%), eNodeB Reconfiguration(13%), LTE Advance Troubleshooting(30%).

Certification Exam

Exam policy: The training is optional.
Prerequisites: It is recommended that you learn HCIA-LTE in advance.

Exam Code	Name	Expense	Duration	Language
H31-421	HCIP-LTE	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-LTE	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-LTE V1.0 Exam Outline
- **Training Material:** HCIP-LTE V1.0 Training Material and Lab Guide
- **Mock Exam:** HCIP-LTE V1.0 Mock Exam

HCIA-LTE-RNP&RNO

Training and certificating engineers with capability to perform basic planning and design and network optimization and adjustment for LTE wireless networks.

Capabilities to be Certified

Demonstrate the capabilities of completing LTE network site survey and simple planning, network testing and basic deployment optimization, and performance monitoring.

Knowledge to Learn

The knowledge about LTE general principles and the capabilities of LTE network site survey and design, radio network testing, optimization and troubleshooting, aiming at standardizing entry-level skills in LTE radio network planning and optimization (RNP&RNO).

Target Audience

- Intended for users who use Huawei wireless products, partner network optimization engineers, intranet optimization engineers, and ICT practitioners.

Content

LTE basic principles, basic features of Huawei 5G radio networks, LTE site survey and network planning, LTE network testing, and performance management and optimization.
LTE System Overview(8%), LTE Air Interface basic and signaling flow(17%), LTE Radio Network Planning Basics(10%), LTE Radio Network Feature basics(27%), Probe and Assistant Application(3%), LTE Single Site Verification(10%), LTE Radio Network RF Optimization(25%).

Certification Exam

Exam policy: The training is optional.
Prerequisites: None

Exam Code	Name	Expense	Duration	Language
H35-560	HCIA-LTE-RNP&RNO	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-LTE-RNP&RNO	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-LTE-RNP&RNO V1.0 Exam Outline
- **Training Material:** HCIA-LTE-RNP&RNO V1.0 Training Material
- **Mock Exam:** HCIA-LTE-RNP&RNO V1.0 Mock Exam

HCIP-LTE-RNP&RNO

Training and certificating senior engineers with capability to perform basic planning and design and network optimization and adjustment for LTE wireless networks.

Capabilities to be Certified

Demonstrate the capabilities of independently completing Huawei LTE network planning and cell parameter design, evaluating and applying network optimization features, managing wireless network performance, and analyzing performance problems, and optimizing performance.

Knowledge to Learn

In-depth knowledge of LTE network principles, and the capabilities of design, application and optimization of LTE network features based on LTE networking features, radio network performance optimization and complaint analysis and handling, aiming at standardizing professional skills in LTE RNP&RNO.

Target Audience

- Intended for users who use Huawei wireless products, partner network optimization engineers, intranet optimization engineers, and ICT practitioners.

Content

LTE air interface principles, LTE protocol and signaling analysis, LTE network planning, Huawei LTE network optimization features, radio network performance management and optimization, radio network problem analysis and handling, and LTE and 2G/3G interoperability optimization.
LTE Air Interface(7%), LTE Protocols and E2E Signaling(12%), LTE Radio Network Design and Planning(7%), LTE Radio Network Features(20%), LTE Interoperability(7%), LTE Radio Network Optimize problem analysis(16%), LTE Radio Network Performance management(15%), LTE Voice Solution Overview(8%), LTE-A Pro Key Technology Overview(5%), NB-IoT Overview(3%).

Certification Exam

Exam policy: The training is optional.

Prerequisites: It is recommended that you learn HCIA-LTE-RNP&RNO in advance.

Exam Code	Name	Expense	Duration	Language
H31-421	HCIP-LTE-RNP&RNO	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-LTE-RNP&RNO	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-LTE-RNP&RNO V1.0 Exam Outline
- **Training Material:** HCIP-LTE-RNP&RNO V1.0 Training Material
- **Mock Exam:** HCIP-LTE-RNP&RNO V1.0 Mock Exam

HCIA-5G

Training and certificating engineers with the 5G industry solution design and 5G industry business marketing capabilities.

Capabilities to be Certified

Demonstrate a systematic understanding of and proficiency in the basic knowledge of 5G networks and its use cases in industries, and the basic knowledge and skills required for positions such as industry solution engineers and pre-sales solution engineers.

Knowledge to Learn

Knowledge about 5G networks and the applications of 5G technologies in various industries, and facilitate talent cultivation for business transformation, application transformation, solution design and application of ICT industry players in the 5G era.

Target Audience

- Intended for users of industries, colleges, and carriers.

Content

Evolution of 5G, 5G industry progress, 5G network challenges, 5G network transformation, 5G use cases in industries, 5G network capabilities and key technologies, and typical industry solution of 5G.
5G Basic concepts and development(33%), 5G Network Capabilities and Key Technologies(25%), 5G Use Cases(17%), 5G Industry Applications and Solutions(25%).

Certification Exam

Exam policy: The training is optional.
Prerequisites: None

Exam Code	Name	Expense	Duration	Language
H35-660	HCIA-5G	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-5G	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-5G V1.0 Exam Outline
- **Training Material:** HCIA-5G V1.0 Training Material
- **Mock Exam:** HCIA-5G V1.0 Mock Exam

HCIA-5G-Bearer

Training and certificating engineers with the 5G bearer network technologies, and basic knowledge about routing, MPLS, SR, ISIS, FlexE, clock, and active FO related to 5G bearer networks capabilities.

Capabilities to be Certified

Demonstrate the understanding of 5G bearer requirements, and the mandatory knowledge about and skills in routing, MPLS, SR, ISIS, FlexE, clock, and active FO technologies related to 5G bearer networks, and the basic knowledge and skills required for positions such as pre-sales technical support, project management, and O&M for 5G bearer networks engineers.

Knowledge to Learn

5G bearer network requirement analysis, 5G bearer network evolution solution, IP routing basics, IS-IS routing protocol basics, basic principles of MPLS, EVPN technology basics, segment routing technology basics, FlexEth technology introduction, 5G bearer clock technology, and 5G fronthaul transport solution and key technologies.

Target Audience

Those who are interested in 5G

Content

HCIA-5G-Bearer V1.0 certification curriculum includes 5G bearer network requirement analysis(10%), 5G bearer network evolution solutions(20%), IP routing basics(5%), IPv6 basics(5%), IS-IS routing protocol basics(10%), basic principles of MPLS and VPN(20%), segment routing technology basics(10%), FlexEth technology introduction(5%), 5G bearer clock technology(5%), and 5G fronthaul transport solution and key technologies(10%).

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H35-670	HCIA-5G-Bearer	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-5G-Bearer	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-5G-Bearer V1.0 Exam Outline
- **Training Material:** HCIA-5G-Bearer V1.0 Training Material
- **Mock Exam:** HCIA-5G-Bearer V1.0 Mock Exam

HCIA-5G-RNP&RNO

Training and certificating engineers with 5G and the basic capability for survey, basic design, testing, and basic optimization of 5G radio networks, 5G radio network planning and optimization (RNP&RNO) capabilities.

Capabilities to be Certified

Demonstrate the capability of independently completing site survey, simple planning, and the basic knowledge and skills required for positions of testing, basic optimization, and performance monitoring for Huawei 5G radio networks engineers.

Knowledge to Learn

5G concepts, 3GPP-based standard 5G network architecture and key technologies, 5G air interface principles and protocol interface procedures, basic features of Huawei 5G radio networks, 5G network planning and site survey, 5G network testing, performance management and optimization.

Target Audience

Those who are interested in 5G.

Content

HCIA-5G-RNP&RNO V1.0 certification curriculum includes 5G concepts, 3GPP-based standard 5G network architecture and key technologies, 5G air interface principles and protocol interface procedures, basic features of Huawei 5G radio networks, 5G network planning and site survey, 5G network testing, performance management and optimization.
Knowledge Points Percentage: 5G RF basics(35%), 5G network planning basics(15%), 5G network testing and optimization(50%)

Certification Exam

Prerequisites: None

Exam Code	Name	Expense	Duration	Language
H35-580	HCIA-5G-RNP&RNO	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-5G-RNP&RNO	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-5G-RNP&RNO V1.0 Exam Outline
- **Training Material:** HCIA-5G-RNP&RNO V1.0 Training Material
- **Mock Exam:** HCIA-5G-RNP&RNO V1.0 Mock Exam

HCIA-5G-RAN

Training and certificating engineers with 5G and basic O&M capabilities of 5G radio network based on Huawei products, 5G radio network O&M capabilities.

Capabilities to be Certified

Demonstrate the capability of independently completing the commissioning and deployment of Huawei 5G radio networks, and the basic knowledge and skills required for positions of performing routine operations and onsite maintenance for Huawei 5G wireless base stations engineers, handling Huawei 5G radio network faults under the guidance of others.

Knowledge to Learn

5G concepts, 3GPP-based standard 5G network architecture and key technologies, 5G air interface principles and protocol interface procedures, hardware and specifications of Huawei 5G wireless base station products, basic configurations and operations of Huawei 5G radio network, and commissioning and deployment of Huawei 5G radio network equipment.

Target Audience

Those who are interested in 5G

Content

HCIA-5G-RAN V2.0 certification curriculum includes basic 5G concepts, 3GPP-based standard 5G network architecture and key technologies, 5G air interface principles and protocol interface procedures, hardware and specifications of Huawei 5G wireless base station products, basic configurations and operations of Huawei 5G radio network, and commissioning and deployment of Huawei 5G radio network equipment.
Knowledge Points Percentage: 5G principle basics(25%), 5G base station product basics(35%), 5G radio network deployment and commissioning(40%)

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H35-480	HCIA-5G-RAN	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-5G-RAN	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-5G-RAN V2.0 Exam Outline
- **Training Material:** HCIA-5G-RAN V2.0 Training Material
- **Mock Exam:** HCIA-5G-RAN V2.0 Mock Exam

HCIA-5G-Core

Training and certificating engineers with 5G core network deployment and routine maintenance, 5G core network deployment and basic maintenance capabilities

Capabilities to be Certified

Demonstrate the network architecture and basic principles of the 5G core network, understand the basic knowledge of Huawei 5G core network products, master the basic knowledge of Huawei UNC/UDG/UDM/UPCF hardware and software, have the skills for positions on routine maintenance of Huawei 5G core network products and routine maintenance operations on the 5G Core network engineers.

Knowledge to Learn

5G core network evolution and key technologies, 5G NSA core network principles, 5G SA core network principles, NFVI and MANO basics, Huawei 5G SA core network product solutions and routine maintenance operations. The involved products include HUAWEI UNC/UDG/UDM/UPCF/U2020.

Target Audience

Those who are interested in 5G.

Content

HCIA-5G-Core V1.0 Certification includes 5G core network evolution and key technologies, 5G NSA core network principles, 5G SA core network principles, NFVI and MANO basics, Huawei 5G SA core network product solutions and routine maintenance operations. The involved products include HUAWEI UNC/UDG/UDM/UPCF/U2020.
Knowledge Points Percentage: 5G Core Network Evolution and Key Technology(30%), 5G Basic Principle(40%), NFV Solution and O&M Solution(10%), 5G SA Core Network Product Routine Operation and Maintenance(20%).

Certification Exam

Prerequisites: None

Exam Code	Name	Expense	Duration	Language
H35-650	HCIA-5G-Core	US$200	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIA-5G-Core	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIA-5G-Core V1.0 Exam Outline
- **Training Material:** HCIA-5G-Core V1.0 Training Material
- **Mock Exam:** HCIA-5G-Core V1.0 Mock Exam

HCIP-5G-RAN

Training and certificating senior engineers with network configuration management, radio network problem analysis and handling based on Huawei products, professional skills for 5G radio network O&M capabilities.

Capabilities to be Certified

Demonstrate the capability of independently completing parameter planning and configuration of Huawei 5G radio networks, and the basic knowledge and skills required for positions of performing routine radio network operations, and analyzing and handling network faults senior engineers.

Knowledge to Learn

5G air interface and protocol principles, Huawei 5G base station hardware specifications and networking principles, 5G base station data planning, MML/CME-based data configuration, routine operations, and troubleshootin.

Target Audience

Those who are interested in 5G

Content

HCIP-5G-RAN V1.0 certification curriculum includes 5G air interface and protocol principles, Huawei 5G base station hardware specifications and networking principles, 5G base station data planning, MML/CME-based data configuration, routine operations, and troubleshooting.
5G principles(15%), 5G base station product knowledge(15%), 5G RAN network data configuration(40%), 5G RAN network maintenance(30%).

Certification Exam

Prerequisites: None.

Exam Code	Name	Expense	Duration	Language
H35-481	HCIP-5G-RAN	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-5G-RAN	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-5G-RAN V1.0 Exam Outline
- **Training Material:** HCIP-5G-RAN V1.0 Training Material
- **Mock Exam:** HCIP-5G-RAN V1.0 Mock Exam

HCIP-5G-Core

Training and certificating senior engineers with 5G network principles and capabilities for the design, application, and optimization of 5G network features based on 5G networking characteristics, and for the analysis and handling of complaints and problems about radio network performance optimization, 5G radio network planning and optimization capabilities.

Capabilities to be Certified

Demonstrate the capabilities of independently completing Huawei 5G radio network planning and cell parameter design, evaluating and applying network optimization features, and the basic knowledge and skills required for positions of managing radio network performance, and analyzing and optimizing performance senior engineers.

Knowledge to Learn

5G air interface principle, 5G protocol and signaling analysis, 5G radio network planning, features related to Huawei 5G radio network optimization, 5G radio network performance management and optimization, and 5G radio network problem analysis and handling.

Target Audience

Those who are interested in 5G.

Content

HCIP-5G-RNP&RNO V1.0 certification curriculum includes 5G air interface principle, 5G protocol and signaling analysis, 5G radio network planning, features related to Huawei 5G radio network optimization, 5G radio network performance management and optimization, and 5G radio network problem analysis and handling.
5G Radio Network Indepth Principles(30%), 5G Radio Network Planning(15%), 5G RAN Feature Application(25%), 5G Radio Netowork Optimization(20%), 5G Radio Network Performance Audit and Optimization(10%).

Certification Exam

Prerequisites: None

Exam Code	Name	Expense	Duration	Language
H35-581	HCIP-5G-RNP&RNO	US$300	90 minutes	English/Chinese

Recertification Method

Certification	Validity Period	Recertification Date	Recertification Exam	Recertification Validity Period
HCIP-5G-RNP&RNO	Three years	Within the validity period	Examinees can update the validity date of the certificate in any of the following cases before the certificate expires: • Pass any exam of the current certification. • pass any exam of the higher level certification which from the same technical direction of the current certification. • pass any exam of the same or higher level certification which from the ICT Infrastructure category.	Three years after the publication of the recertification result

Learning Materials

- **Exam Outline:** HCIP-5G-RNP&RNO V1.0 Exam Outline
- **Training Material:** HCIP-5G-RNP&RNO V1.0 Training Material
- **Mock Exam:** HCIP-5G-RNP&RNO V1.0 Mock Exam

Huawei Recertification Method

Recertification Information

With the advances of ICT technologies, Huawei certification content will be updated and optimized irregularly. Recertification can renew the validity of a certificate, and ensure that certification complies with the latest development trend of ICT technologies.
To ensure that the professional capabilities of certified personnel match the latest trends in the ICT field in real time, recertification requirements are implemented. For details about the recertification rules, see the following explanations.
If the certificate holder does not participate in recertification before the certificate expires, the certificate will become invalid. To make the certificate valid again, the certificate holder must participate in the corresponding certification exam.

Certificate Validity Period

Certification Level	Period of Validity	Validity Period Extension Rule
HCIA(Associate Level)	Three years	If recertification is successful within a certificate's three-year validity period, the certificate validity period will be extended by three years after the exam result release date.
HCIP(Professional Level)	Three years	
HCIE(Expert Level)	Two years + one year (buffer period when the certificate is invalid)	If recertification is successful within a certificate's two-year validity period, the certificate validity period will be extended by two years after the exam result release date. If recertification is successful within a certificate's one-year buffer period, the certificate validity period will be extended by two years after the original expiration date.

Recertification Rule

Huawei certification consists of two categories: ICT infrastructure, Cloud Service & Platform.
Examinees can update the validity date of the certificate in any of the following cases before the certificate expires:

- Pass any exam of the current certification.
- Pass any exam of the higher level certification which from the same technical direction of the current certification.
- Pass any exam of the same or higher level certification which from the same technical domain of the current certification.

Recertification Project

Technical Domain	Technical Direction	Associate Level	Professional Level	Expert Level
Cloud Service & Platform	HarmonyOS	/	/	/
	IoT	HCIA-IoT	HCIP-IoT Developer	/
	Big Data	HCIA-Big Data	HCIP-Big Data Developer	HCIE-Big Data-Data Mining
	AI	HCIA-AI	HCIP-AI-EI Developer	/
	GaussDB	/	/	/
	openEuler	/	/	/
	Kunpeng Application Developer	/	/	/
	Cloud	HCIA-Cloud Service	HCIP-Cloud Service Solutions Architect	HCIE-Cloud Service Solutions Architect
		HCIA-Cloud Computing	HCIP-Cloud Computing	HCIE-Cloud Computing
			HCIP-Cloud Computing-OpenStack	
			HCIP-Cloud Computing-Container	

Technical Domain	Technical Direction	Associate Level	Professional Level	Expert Level
ICT Infrastructure	Storage	HCIA-Storage	HCIP-Storage	HCIE-Storage
	Intelligent Computing	HCIA-Intelligent	HCIP-Intelligent Computing	HCIE-Intelligent Computing
	Data Center	HCIA-Data Center	HCIP-Data Center	HCIE-Data Center
		HCIA-Data Center Facility	HCIP-Data Center Facility Deployment	HCIE-Data Center Facility Design
	Enterprise Communication	HCIA-Unified Communication	HCIP-Unified Communication	HCIE-Enterprise Communication
		HCIA-Video Conference	HCIP-Video Conference	
	Datacom	HCIA-Datacom	HCIP-Datacom-Advanced Routing & Switching Technology	/
			HCIP-Datacom-Network Automation Developer	/
			HCIP-Datacom-Campus Network Planning and Deployment	/
			HCIP-Datacom-SD-WAN Network Planning and Deployment	/
		HCIA-Routing & Switching	HCIP-Routing & Switching	HCIE-Routing & Switching
			HCIP-Carrier IP	HCIE-Carrier IP
	WLAN	HCIA-WLAN	HCIP-WLAN	--
	Security	HCIA-Security	HCIP-Security	--
	SDN	HCIA-SDN	--	--
	Transmission	HCIA-Transmission	HCIP-Transmission	--
	Access	HCIA-Access	HCIP-Access	--
	LTE	HCIA-LTE	HCIP-LTE	--
		HCIA-LTE-RNP&RNO	HCIP-LTE-RNP&RNO	--
	5G	HCIA-5G	--	--
		HCIA-5G-Bearer	--	--
		HCIA-5G-RNP&RNO	HCIP-5G-RNP&RNO	--
		HCIA-5G-RAN	HCIP-5G-RAN	--
		HCIA-5G-Core	--	--

A Quick Reference to Huawei Certification Exams

Technical Direction	Certification Program	Exam Code	Expense (USD)	Training project	Duration (Working Days)
Big Data	HCIA-Big Data	H13-711	200	HCIA-Big Data Training	5
	HCIP-Big Data Developer	H13-723	300	HCIP-Big Data Developer Training	8
	HCIE-Big Data-Data Mining(Written)	H13-731	300	HCIE-Big Data-Data Mining Training	12
	HCIE-Big Data-Data Mining(Lab)	H13-732	1200		
	HCIE-Big Data-Data Mining(Interview)	H13-733			
AI	HCIA-AI	H13-311	200	HCIA-AI Training	5
	HCIP-AI-EI Developer	H13-321	300	HCIP-AI-EI Developer Training	9
IoT	HCIA-IoT	H12-111	200	HCIA-IoT Training	5
Cloud Service	HCIA-Cloud Service	H13-811	200	HCIA-Cloud Service Training	5
	HCIP-Cloud Service Solutions Architect	H13-821	300	HCIP-Cloud Service Solutions Architect Training	5
	HCIE-Cloud Service Solutions Architect(Written)	H13-831	300	HCIE-Cloud Service Solutions Architect Training	10
	HCIE-Cloud Service Solutions Architect(Lab)	H13-832	1200		
	HCIE-Cloud Service Solutions Architect(Interview)	H13-833			
Cloud Computing	HCIA-Cloud Computing	H13-511	200	HCIA-Cloud Computing Training	5
	HCIP-Cloud Computing	H13-527	300	HCIP-Cloud Computing Training	8
	HCIP-Cloud Computing-OpenStack	H13-525	300	HCIP-Cloud Computing-OpenStack Training	5
	HCIP-Cloud Computing-Container	H13-526	300	HCIP-Cloud Computing-Container Training	5
	HCIE-Cloud Computing(Written)	H13-531	300	HCIE-Cloud Computing Training	15
	HCIE-Cloud Computing(Lab)	H13-532	1200		
	HCIE-Cloud Computing(Interview)	H13-533			
Data Center	HCIA-Data Center	H13-411	200	HCIA-Data Center Training	5
	HCIP-Data Center-ITIDM	H13-421	160	HCIP-Data Center Training	14
	HCIP-Data Center-CDCDM	H13-422	160		
	HCIE-Data Center(Written)	H13-431	300	HCIE-Data Center Training	15
	HCIE-Data Center(Lab)	H13-432	1200		
	HCIE-Data Center(Interview)	H13-433			
	HCIA-Data Center Facility	H12-411	200	HCIA-Data Center Facility Training	5
	HCIP-Data Center Facility Deployment	H12-425	160	HCIP-Data Center Facility Deployment Training	10

Technical Direction	Certification Program	Exam Code	Expense (USD)	Training project	Duration (Working Days)
Data Center	HCIE-Data Center Facility Design(Written)	H12-461	300	HCIE-Data Center Facility Design Training	7
	HCIE-Data Center Facility Design(Lab)	H12-462	1200		
	HCIE-Data Center Facility Design(Interview)	H12-463			
Storage	HCIA-Storage	H13-612	200	HCIA-Storage Training	5
	HCIP-Storage	H13-624	300	HCIP-Storage Training	5
	HCIE-Storage(Written)	H13-629	300	HCIE-Storage Training	10
	HCIE-Storage(Lab)	H13-630	1200		
	HCIE-Storage(Interview)	H13-631			
Intelligent Computing	HCIA-Intelligent Computing	H13-211	200	HCIA-Intelligent Computing Training	5
	HCIP-Intelligent Computing	H13-221	300	HCIP-Intelligent Computing Training	5
	HCIE-Intelligent Computing(Written)	H13-231	300	HCIE-Intelligent Computing Training	8
	HCIE-Intelligent Computing(Lab)	H13-232	1200		
	HCIE-Intelligent Computing(Interview)	H13-233			
Enterprise Communication	HCIA-Video Conference	H11-851	200	HCIA-Video Conference Training	5
	HCIP-Video Conference	H11-861	300	HCIP-Video Conference Training	8
	HCIE-Enterprise Communication(Written)	H11-879	300	HCIE-Enterprise Communication Training	15
	HCIE-Enterprise Communication(Lab)	H11-880	1200		
	HCIE-Enterprise Communication(Interview)	H11-881			
Datacom	HCIA-Datacom	H12-811	200	HCIA-Datacom Training	10
	HCIP-Datacom-Core Technology	H12-821	300	HCIP-Datacom-Core Technology Training	10
	HCIP-Datacom-Advanced Routing & Switching Technology	H12-831	180	HCIP-Datacom-Advanced Routing & Switching Technology Training	5
	HCIP-Datacom-Network Automation Developer	H12-881	180	HCIP-Datacom-Network Automation Developer Training	10
	HCIP-Datacom-Campus Network Planning and Deployment	H12-841	180	HCIP-Datacom-Campus Network Planning and Deployment Training	5
	HCIP-Datacom-SD-WAN Planning and Deployment	H12-871	180	HCIP-Datacom-SD-WAN Planning and Deployment Training	5
	HCIA-Routing & Switching	H12-211	200	HCIA-Routing & Switching Training	10
	HCIP-Routing & Switching-IERS	H12-221	160	HCIP-Routing & Switching Training	15
	HCIP-Routing & Switching-IENP	H12-222	160		
	HCIP-Routing & Switching-IEEP	H12-223	160		
	HCIE-Routing & Switching(Written)	H12-261	300	HCIE-Routing & Switching training	15
	HCIE-Routing & Switching(Lab)	H12-262	1200		
	HCIE-Routing & Switching(Interview)	H12-263			

Technical Direction	Certification Program	Exam Code	Expense (USD)	Training project	Duration (Working Days)
WLAN	HCIA-WLAN	H12-311	200	HCIA-WLAN Training	5
	HCIP-WLAN-CEWA	H12-321	160	HCIP-WLAN Training	10
	HCIP-WLAN-POEW	H12-322	160		
Security	HCIA-Security-CBSN	H12-711	200	HCIA-Security Training	10
	HCIP-Security-CISN	H12-721	160	HCIP-Security Training	15
	HCIP-Security-CTSS	H12-722	160		
	HCIP-Security-CSSN	H12-723	160		
	HCIP-Security(Fast Track)	H12-724	200	HCIP-Security Training(Fast-Track)	5
SDN	HCIA-SDN	H31-611	200	HCIA-SDN Training	5
Transmission	HCIA-Transmission	H31-311	200	HCIA-Transmission Training	10
	HCIP-Transmission	H31-341	300	HCIP-Transmission Training	15
Access	HCIA-Access	H35-210	200	HCIA-Access Training	5
	HCIP-Access	H35-211	200	HCIP-Access Training	10
LTE	HCIA-LTE	H31-411	200	HCIA-LTE Training	10
	HCIP-LTE	H31-421	300	HCIP-LTE Training	10
5G	HCIA-5G	H35-460	200	HCIA-5G Training	4

HCIE Voucher Type	Expense(USD)
HCIE Make-Up Interview Voucher	800
HCIE LAB Exam Scores Review Voucher	420

Note:

HCIE Make-up Interview Voucher: After failing an interview, HCIE exam takers can use HCIE make-up interview voucher to apply for another interview within the validity period of their lab scores.

HCIE LAB Exam Scores Review Voucher: If HCIE exam takers have doubt about their lab scores, they can use LAB exam scores review voucher to apply for a double check of their scores within 10 days after their lab scores are released.

Guide for Huawei Certification Brochure.

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