



CCIE Enterprise Infrastructure

v1.1

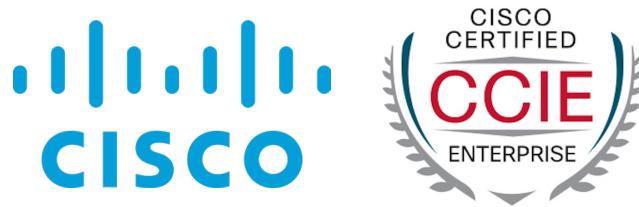


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CCIE Enterprise Infrastructure V1.1 Certification is the highest and most prestigious certification from Cisco. It ranks No. 1 in the 10 Most Difficult IT Certifications list and is highly valued worldwide. A CCIE certified individual is an elite title in the field of network engineering, proving their mastery in their domain of Cisco networking.



The CCIE Enterprise Certified experts have the required knowledge and skills for the field, including dual-stack (IPv4 and IPv6) architecture, virtualization, infrastructure, network assurance, security, and automation. The quality of the program, the testing methods, and the relevance of this certification enhances its value. At IP Rulers, the classes are facilitated by CCIE Enterprise certified and experienced instructors, and students will be exposed to the latest equipment's with grouped as well as one-to-one classes and online tutorials that could be scheduled for weekdays or weekends in accordance to the students' choice, IP Rulers is fast becoming a leading name in Dubai in providing highly valued Cisco Certificates with a significant pass rate on the first attempt.

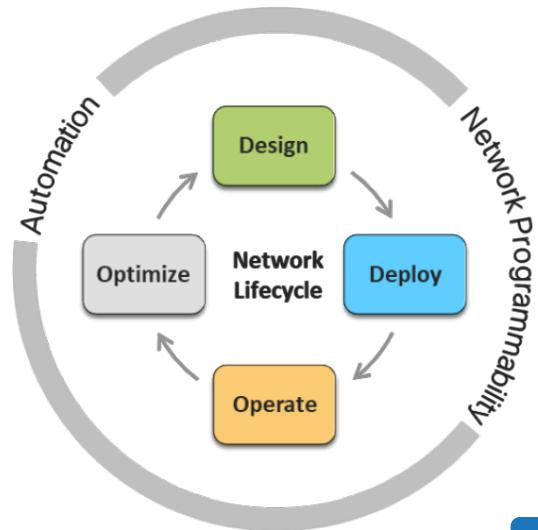


COURSE DETAILS

CCIE Enterprise Infrastructure V1.1 certification is the avatar of core knowledge and practical skills in the management of the most complex scenarios of the entire IT Enterprise Infrastructure of a network lifecycle (Designing, Deploying, Operating & Optimizing). IP Rulers provide CCIE Enterprise Infrastructure training just as per the course described by the Cisco Security Certification blueprint

The new method adapted for CCIE Exam is given below, which have vital parts known as

Design, Deploy, Operate & Optimize.





Step 1

350-401 ENCOR V1.1 : Implementing and Operating Cisco Enterprise Network Core Technologies

The 120-minute, Implementing and Operating Cisco Enterprise Core Technologies v1.1 (ENCOR 350-401 v1.1) exam is associated with the CCNP Enterprise, Cisco Certified Specialist (with core subject Enterprise), and CCIE Enterprise Certifications. The qualifying exam, Implementing and Operating Cisco Enterprise Network Core Technologies, focuses on your knowledge of enterprise networking infrastructure.

Step 2

CCIE Enterprise Infrastructure v1.1 Lab Exam

The 8-hour Cisco CCIE Enterprise Infrastructure (v1.1) Practical Exam is a hands-on exam that requires a candidate to plan, design, deploy, operate, and optimize network security solutions according to the given scenarios.

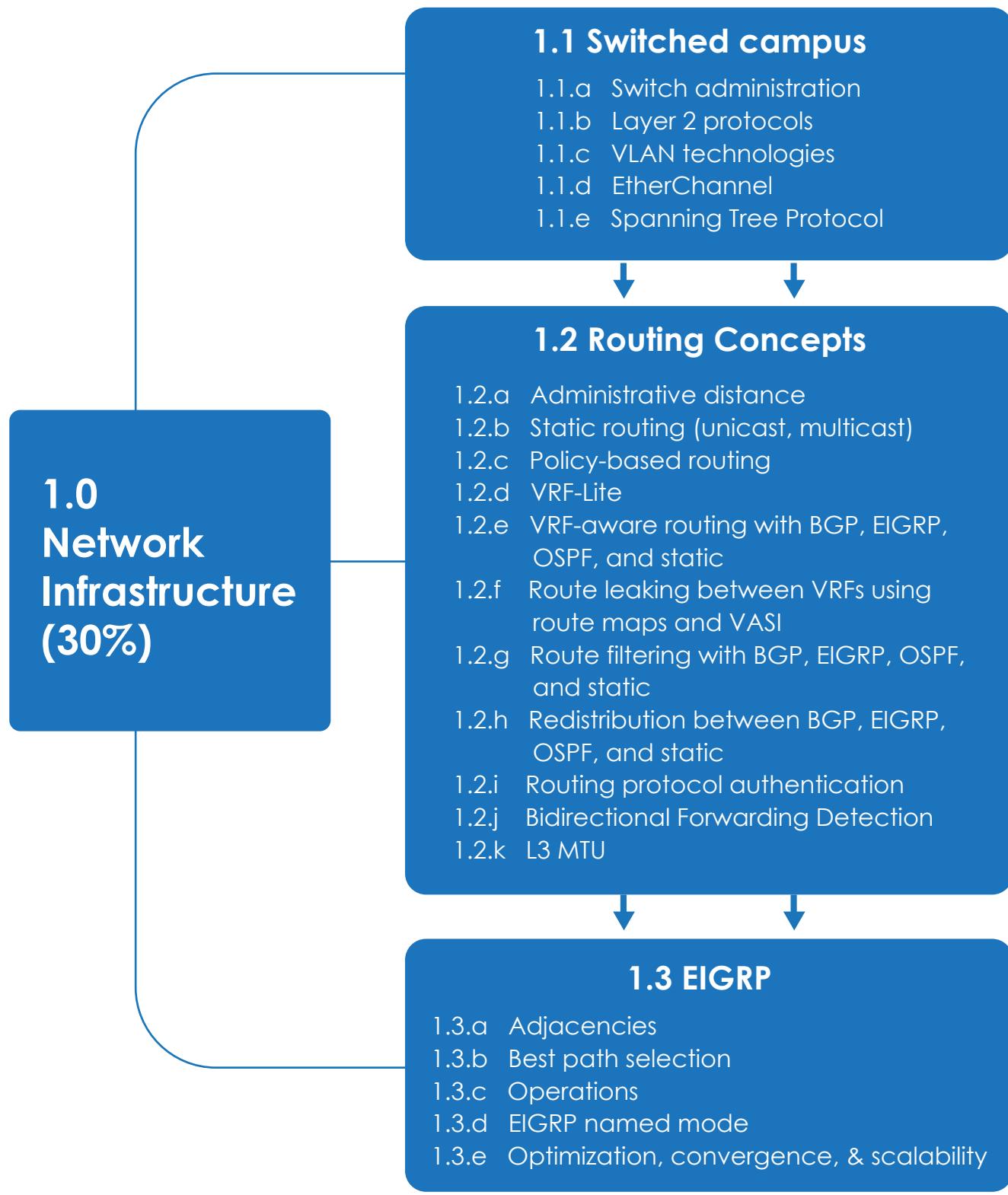
CCIE Lab Exam summary

	Module 1	Module 2
Time	3 hours (fixed)	5 hours (fixed)
Format	Scenario based	Hands-on + Web-based items
Backward Navigation within the module	Disabled	Enabled
Point Values	Hidden	Shown
Design	Deploy	Operate
		Optimize

PREREQUISITES

- ▶ The CCIE Enterprise Infrastructure does not require any particular qualification for attendance of the course. However, comprehensive knowledge of the subjects is necessary for attending the examinations.
- ▶ Five to seven years' experience in networking field, especially in designing, deploying, operating, and optimizing security technologies will be an advantage to attempt the CCIE examination.

COURSE OUTLINE





3.0 Transport Technologies & Solutions (15%)

3.1 STATIC POINT-TO-POINT GRE TUNNELS

3.2 MPLS

- ▶ 3.2.a Operations

3.3 DMVPN

- ▶ 3.3.a Troubleshoot DMVPN
Phase 3 with dual hub

4.0 Infrastructure Security & Services (15%)

4.1 Device security on Cisco IOS XE

- 4.1.a Control plane policing and protection
- 4.1.b AAA

4.2 Network security

- 4.2.a Switch security features
- 4.2.b Router security features
- 4.2.c IPv6 infrastructure security features

4.3 System management

- 4.3.a Device management
- 4.3.b SNMP (v2c, v3)
- 4.3.c Logging

4.0 Infrastructure Security & Services (15%)

4.4 Quality of Service

- 4.4.a Differentiated Services architecture
- 4.4.b Classification, trust boundary
- 4.4.c Network Based Application Recognition (NBAR)
- 4.4.d Marking DSCP values in IPv4 and IPv6 headers
- 4.4.e Policing, shaping
- 4.4.f Congestion management & avoidance
- 4.4.g HQoS
- 4.4.h End-to-end Layer 3 QoS using MQC

4.5 Network services

- 4.5.a First-Hop Redundancy Protocols
- 4.5.b Time synchronization protocols
- 4.5.c DHCP on Cisco devices
- 4.5.d IPv4 Network Address Translation

4.6 Network optimization

- 4.6.a IP SLA (ICMP, UDP, TCP probes)
- 4.6.b Tracking objects and lists
- 4.6.c Flexible NetFlow

4.7 Network operations

- 4.7.a Traffic capture
- 4.7.b Troubleshooting tools

5.0 Infrastructure Automation & Programmability

5.1 Data encoding formats

- 5.1.a JSON
- 5.1.b XML
- 5.1.c YAML
- 5.1.d Jinja

5.2 Automation and scripting

- 5.2.a EEM applets
- 5.2.b Guest shell

5.3 Programmability

- 5.3.a Interaction with vManage API
- 5.3.b Interaction with Cisco DNA Center API using HTTP requests (GET, PUT, POST) via Python requests library and Postman
- 5.3.c Deploy and verify model-driven telemetry

LAB INFRASTRUCTURE

IP Rulers has a fully equipped lab, specially designed for the CCIE Enterprise Infrastructure training, with an enhanced lab topology that represent real world network. Students will have the following equipment and software configured for their training; they may also get the chance to see newer hardware and software during this period.

CCIE ENTERPRISE INFRASTRUCTURE V1.1 EQUIPMENT AND SOFTWARE LIST:

The practical exam tests candidates on solutions that can be configured using the below Equipment and software versions. Candidates may see more recent software versions during their attempt but will only be tested on features that are supported in the list below.

Passing the exam requires a depth of understanding difficult to obtain without hands-on experience. Early in your preparation you should arrange access to equipment and software similar to that used on the exam.

- ▶ Cisco Catalyst 8000V Routers with Cisco IOS XE Software Release 17.9
- ▶ Cisco IOSv with Cisco IOS Software Release 15.8
- ▶ Cisco IOSv-L2 with Cisco IOS Software Release 15.2
- ▶ Cisco SD-WAN (vManage, vBond, vSmart, cEdge) Software Release 20.9
- ▶ Cisco DNA Center, Release 2.3

Physical Equipment

- ▶ Cisco Catalyst 9300 Switches with Cisco IOS XE Software Release 17.9 Other (supporting virtual machines)
- ▶ Cisco Identity Services Engine 3.1
- ▶ Linux Desktop

MODE OF TRAINING

Classroom-based Training	Online Training	Corporate Training
Go old-school. Make friends and have fun, just like elementary grades. Follow lectures, turn in assignments and appear for exams in campus-style!	Sit in the comfort of your home as you move through the course. Instructors will guide you in predetermined sessions. Hundreds of supporting videos available, in case you want to outshine yourself.	Lectures and hands-on training for office employees, in the comfort of their own office. Sponsored by employers to push up their employees above the market competence.
One-on-One Training	Fast Track Training	Private Group Training
An instructor will train you in private – without any external intrusion. Ideal if you want to progress on your own. Schedule your classes according to your own timeline as you advance, without disruption to your daily routine.	No time to follow regular class timeline? Go fast track – speed through the course, whether it be alone, or online, in groups, on an accelerated timescale, to give the icing on the cake.	You and your friends like to be together in a class, but without any outsiders? You've got it! Feel as if you have hired your own instructor. A way to combat shyness, with the comfort of your friend-circle.

Lab workshop training

This would be helpful for those who are already familiar with the technologies in depth with hands-on to clear their ccie lab exam.

- ▶ Network engineers attempting the core exam – Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR 350- 401).
- ▶ Network engineers who have five to seven years of professional experience in designing, deploying, operating, and optimizing enterprise networking technologies.
- ▶ Network designers who design and support complex network technologies and topologies.
- ▶ Network engineers who use an expert-level problem-solving process (including options analysis) to support complex network technologies and topologies
- ▶ IT students and professionals seeking strong expertise in the subject and an internationally recognized qualification in the same for prospective jobs.
- ▶ Candidates with CCNP Enterprise Certification, moving on to expert levels.

TRAINER'S PROFILE

- ▶ IP Rulers is managed by an expert team of trainers with over 15 years' experience in the industry and in hands-on training.
- ▶ All the trainers have multiple CCIEs in their respective areas of interest.
- ▶ Individual trainers' profiles can be provided upon request by email, along with demos and LinkedIn profiles.
- ▶ Online and classroom demos are also available upon request

BENEFITS

- ▶ Job roles of elite executives in the fast-paced world of Enterprise network.
- ▶ Industry-level knowledge and direct experience in implementation of core Cisco enterprise infrastructure solutions.
- ▶ Ability to recognize customer requirements and support proposed solutions.
- ▶ Enhanced job opportunities with sky-high career growth, coupled with respectable compensations.
- ▶ Expertise in all stages of implementing complex networking solutions – from creation and analysis, to operation and optimization.
- ▶ Essential skills in networking automation and network programmability in the fast-changing world of technology.
- ▶ Specialist Certification for clearing the qualifying exam.
- ▶ Authority to link the CCIE Certification Badge to all social media profiles.



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