

# € TRAINING

Cisco Certified Internetwork Expert CCIE





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## Introduction:

This program is designed to prepare participants for the certification exam only.

This training program provides participants with advanced knowledge and practical skills essential for becoming proficient in designing, implementing, and managing complex networking solutions using Cisco technologies. It empowers them to excel in network engineering roles and address the evolving challenges in modern networking environments.

## Program Objectives:

At the end of this program, participants will be able to:

- Master the advanced concepts and technologies covered in the CCIE certification exams.
- Develop practical skills in designing, deploying, and troubleshooting complex network solutions.
- Gain expertise in configuring and managing Cisco networking devices and technologies.
- Prepare effectively for CCIE certification exams.
- Enhance capabilities to design and implement scalable and secure network infrastructures.

## Targeted Audience:

- Network Engineers.
- Network Administrators.
- IT Professionals aspiring for CCIE certification.
- Cisco Certified Professionals seeking advanced training.
- Network Architects.
- Systems Engineers.

## Program Outline:

Unit 1:

CCIE Written Exam Preparation:

- Overview of CCIE certification tracks and requirements.
- Understanding the topics and domains covered in the CCIE written exams.
- Study strategies and resources for preparing for the written exams.
- Reviewing key concepts in networking fundamentals, routing, switching, and security.
- Example of tests and quizzes to assess knowledge and readiness for the written exams.

## Unit 2:

### Advanced Networking Technologies:

- Deep dive into advanced networking technologies, protocols, and architectures.
- Configuration and optimization of routing protocols such as OSPF, EIGRP, and BGP.
- Implementing advanced switching technologies including VLANs, STP, and EtherChannel.
- Exploring network virtualization technologies like VRF, VDC, and VXLAN.

## Unit 3:

### Network Design and Implementation:

- Principles of network design methodologies and best practices.
- Planning and designing scalable and resilient network architectures.
- Steps for the implementation of network infrastructures using Cisco devices and technologies.
- Evaluating network performance, scalability, and reliability.
- Case studies and design scenarios to apply network design principles.

## Unit 4:

### Network Security and Management:

- Understanding network security threats, vulnerabilities, and countermeasures.
- Steps for the implementation of security policies, access control, and encryption techniques.
- Configuring and managing network security devices such as firewalls, VPNs, and IDS/IPS.
- Monitoring and troubleshooting security incidents in network environments.
- Exercises on securing and managing network infrastructures.



## Unit 5:

### CCIE Lab Exam Preparation:

- Overview of the CCIE lab exam format, requirements, and scoring methodology.
- Strategies and tips for effective lab exam preparation and time management.
- Troubleshooting common issues and optimizing configurations in lab environments.
- Examples for lab exams and simulations to assess readiness for the CCIE lab exams.

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