



BUILDING TRAINING SOLUTIONS  
FOR THE IT WORLD

## Implementing Cisco IP Routing (ROUTE)

**Days:** 5  
**Format:** Instructor-Led  
**Class Code:** ROUTE  
**Certification Exams:** None  
**Certification Track:** None

### Recommended Course Sequence

Knowledge of prerequisites  
noted below.

*Course content is subject to change  
without notice.*

### Course Description:

Implementing Cisco IP Routing (ROUTE) v1.0 is an instructor-led five day training course developed to help students prepare for Cisco CCNP certification. The ROUTE course is a component of the CCNP curriculum.

The ROUTE course is designed to provide professionals of medium to large network sites with information on the use of advanced routing in implementing scalability for Cisco routers that are connected to LANs and WANs. The goal is to train professionals to dramatically increase the number of routers and sites using these techniques instead of redesigning the network when additional sites or wiring configurations are added.

### Target Student:

The course is appropriate for enterprise network engineers with at least one year of job experience who are ready to advance their skills and work independently on complex network solutions.

### Prerequisites:

CCNA - [Cisco Certified Network Associate \(CCNA\) Version 2.0](#)

### Course Objectives:

- Plan and document the configuration and verification of routing protocols and their optimization in enterprise networks.
- Identify the technologies, components, and metrics of EIGRP used to implement and verify EIGRP routing in diverse, large-scale internetworks based on requirements.
- Identify, analyze, and match OSPF multiarea routing functions and benefits for routing efficiencies in network operations in order to implement and verify OSPF routing in a complex enterprise network.
- Implement and verify a redistribution solution in a multi-protocol network that uses Cisco IOS features to control path selection and provides a loop-free topology according to a given network design and requirements.
- Evaluate common network performance issues and identify the tools needed to provide Layer 3 path control that uses Cisco IOS features to control the path.
- Implement and verify a Layer 3 solution using BGP to connect an enterprise network to a service provider.

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## Course Outline

Lessons
■ Module 1: Planning Routing Services
■ Module 2: Implementing an EIGRP based Solution
■ Module 3: Implementing a Scalable Multiarea Network OSPF based Solution
■ Module 4: Implement an IPv4 based redistribution solution
■ Module 5: Implement Path Control
■ Module 6: Connecting an Enterprise Network to ISP Networks
■ E-Learning ROUTE-01 of 3: Implement Path Control
■ E-Learning ROUTE-02 of 3: Implementing IPv6
■ E-Learning ROUTE-03 of 3: Implementing Routing Facilities for Branch Offices and Mobile Workers