



Certificate of Course Completion

CCNA Exploration: Network Fundamentals

During the Cisco® Networking Academy course, administered by the undersigned instructor, the student was able to proficiently:

- Explain how communication works in data networks and the Internet
- Recognize the devices and services that are used to support communications across an internetwork
- Explain the role of protocols in data networks
- Describe the importance of addressing and naming schemes at various layers of data networks
- Describe the protocols and services provided by the application layer in the OSI model and describe how this layer operates in sample networks
- Analyze the operations and features of the transport layer protocols and services
- Analyze the operations and features of the network layer protocols and services and explain the fundamental concepts of routing
- Design, calculate, and apply subnet masks
- Describe the operation of protocols at the data link layer
- Explain the role of physical layer protocols and services
- Build a simple Ethernet network using routers and switches
- Use Cisco CLI commands to perform basic router and switch configuration and verification

Morten Asmus

Student

Malardalen University

Academy Name

Västerås

Location

Nilsson, Robert

Instructor

March 16, 2010

Date

Instructor Signature



Certificate of Course Completion

CCNA Exploration: Routing Protocols and Concepts

During the Cisco® Networking Academy course, administered by the undersigned instructor, the student was able to proficiently:

- Describe the purpose, nature and operations of a router and routing tables
- Describe, configure and verify router interfaces
- Explain the purpose and procedure for configuring static routes
- Identify the characteristics of distance vector routing protocols
- Describe the network discovery process of distance vector routing protocols using Routing Information Protocol (RIP)
- Describe the functions, characteristics, and operations of the RIP protocols
- Compare and contrast classful and classless IP addressing
- Describe classful and classless routing behaviors in routed networks
- Design and implement a classless IP addressing scheme for a given network
- Demonstrate comprehensive RIP configuration skills
- Describe the main features and operations of the Enhanced Interior Gateway Routing Protocol (EIGRP)
- Describe the basic features and concepts of link-state routing protocols
- Describe the purpose, nature and operations of the Open Shortest Path First (OSPF) protocol

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