



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

Gurleen Singh

Student

Dehradun Institute of Technology

Academy Name

Location

KHAN, JAHID

Instructor

October 2, 2011

Date

Instructor Signature



Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706

Direct: 408 526 4000  
FAX: 408 526 4100  
[www.cisco.com](http://www.cisco.com)

October 2, 2011

Dear Gurleen Singh

Congratulations on completing the **CCNA Exploration: Network Fundamentals** course as part of the Cisco Networking Academy. This hands-on, lab-oriented course has prepared you for exciting career opportunities in the technology industry.

By completing this course you have earned a Certificate of Completion for CCNA Exploration: Network Fundamentals, and acquired competencies that include the following:

- Using network protocol models to explain the layers of communications in data networks
- Designing, calculating, and applying subnet masks and addresses
- Building a simple Ethernet network using routers and switches
- Employing basic cabling and network designs to connect devices
- Using Cisco CLI commands to perform basic router and switch configuration and verification

Technological literacy is more important today than ever before, and Cisco is proud to provide you with the knowledge and skills necessary to build and maintain computer networks.

Please accept my best wishes for your continued success.

Sincerely,

A handwritten signature in black ink that reads "John Chambers".

John T. Chambers  
Chairman and Chief Executive Officer