



Certificate of Course Completion

Cisco Networking Academy®
Mind Wide Open™

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

Dawid Adamski

Student

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Academy Name

Location

Piwinski, Mariusz

Instructor

PRODZIEKAN

Dr hab. Mariusz Piwinski, prof. UMK

June 15, 2011

Date

Instructor Signature