

CCNA 2 ROUTERS AND ROUTING BASICS



Ruediger Leibrandt

Date : August 17, 2005

Instructor : Sethmann
Dr. Richard

Location : Bremen

Academy Name : Hochschule Bremen,
Fachbereich
Elektrotechnik und
Informatik

Instructor's Signature

During the CCNA 2 Course administered by the undersigned instructor, the student was able to proficiently:

- Identify the key characteristics of common wide area networking (WAN) configurations and technologies
- Compare and contrast common WAN and LAN technologies
- Describe the role of a router in a WAN
- Explain the fundamental operation of the router operating system (IOS)
- Establish communication between a terminal device and the router IOS
- Use IOS for router analysis, configuration, and repair
- Identify and describe the major internal and external components of a router
- Connect router Fast Ethernet, Serial WAN, and console ports
- Perform, save, and test an initial configuration on a router
- Configure additional administrative functionality on a router
- Use embedded data link layer functionality to perform network neighbor discovery and analysis from the router console
- Use IOS embedded Layer 3 through Layer 7 protocols to establish, test, suspend or disconnect connectivity to remote devices from the router console
- Identify the stages of the router boot-up sequence, and demonstrate how the configuration register and boot system commands can modify that sequence
- Manage system image and device configuration files
- Describe the operation of the Internet Control Message Protocol (ICMP) and identify the reasons, types, and format of associated error and control messages
- Identify, configure, and verify the use of static and default routes
- Evaluate the major characteristics of routing protocols
- Identify, analyze, and demonstrate how to rectify inherent problems associated with distance vector routing protocols
- Configure, verify, analyze, and troubleshoot simple distance vector routing protocols
- Use IOS commands to analyze and rectify network problems
- Describe the operation of the major transport layer protocols and the interaction and carriage of application layer data
- Identify how router packet throughput can be controlled using access control lists
- Analyze, configure, implement, verify, and rectify access control lists within a router configuration



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Dear Ruediger Leibrandt

Congratulations! You have successfully completed CCNA 2 Routers and Routing Basics of the Cisco Networking Academy Program.

During the course, you have developed a solid foundation in the basics of networking, demonstrating knowledge of important concepts and skills, including the OSI model, Ethernet networks running TCP/IP, IP addressing, and structured cabling skills.

Information technology skills are in high demand given the explosive growth of the Internet as a practical business tool. Technological literacy is more important today than ever before, and Cisco is proud to provide you with the knowledge and skills to design, build, and maintain computer networks.

Wishing you continued success in CCNA 3!

Sincerely,

A handwritten signature in black ink that reads "John Chambers". The signature is written in a cursive, flowing style.

John Chambers
President and CEO
Cisco Systems, Inc.