

Multi-site Network Packet Tracer Activity

Network Overview

The MCCCD-SCC CAN (Campus Area Network) is a logical example of two campus networks linked by a Wide Area Network (WAN) connection. Each campus network is setup with core network including a Cisco router, core distribution switch, DNS/DHCP Server and a Web Server. Next there is a distribution switch in each building that connects several PC's and a department printer.

Each campus network is self-contained, and they are networked together over the WAN link using a high-speed fiber optic network.

By hovering over each network device or end-user device you can determine the network ID for each campus network and the IP Addresses associate with each device. You can also click on the device to view the configuration to determine this information and any special device configurations.

Your network should look like the illustration below. When you first open the file, it may take a moment to initialize and for each device to register on the network.



Questions:

1. What is the *Network ID* of the **SCC Network**?

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- 2. What is the *Network ID* of the **MCCCD Network**?
- 3. Are the devices setup using static IP Addresses or DHCP?
- 4. What is the Network ID of the high-speed WAN link?
- 5. What are the names of the interfaces use to connect to the WAN?
- 6. Are there any notable differences between the local Network ID's and the WAN link Network ID's?
- 7. From **PC002** on the **MCCCD Network** can you ping other PC's in **Building A**?
- 8. What are the *hostnames* and *IP Addresses* SCC Servers?
 - a. SCC DNS/DHCP Server _____
 - b. SCC Web Server

Activity 1. Access Devices Across the Network

- 1. Open PC03 on the SCC Network, and click Desktop > Web Browser
- 2. Enter the address for the MCCCD Web server in the URL field and click Go
 - a. Does the website load?
 - b. What text is displayed on the page?
- 3. Can you ping the **MCCCD** router?
 - a. Which interface is **PC03** able to reach?
 - b. What is its IP Address? _____
- 4. What is the DHCP scope of each Network?
 - a. MCCCD Network _____
 - b. SCC Network
- 5. What is the address of **PC002** machine on the MCCCD network?
- 6. Can you ping the **PC002** machine on the MCCCD network?
- 7. How many hops does it take for **PC03** to reach **PC002**?

When you have finished the activities, you can try making changes on some of the devices to see how each link will affect connectivity. Close Packet Tracer and do not save changes to the MCCCD-SCC Can.pkt file.