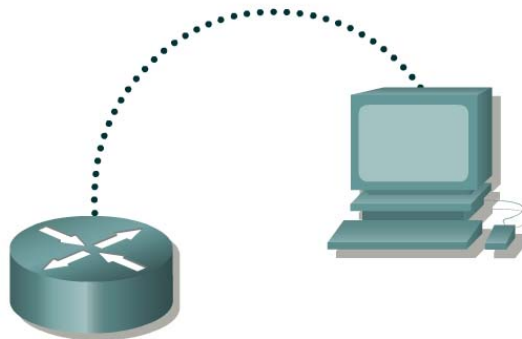


Lab 2.2.4 Establishing a Console Session with HyperTerminal – Instructor Version 2500



Straight-through cable	—————
Serial cable	————— $\color{red}\text{Z}$
Console (Rollover)
Crossover cable	- - - - -

Objective

- Connect a router and workstation using a console cable.
- Configure HyperTerminal to establish a console session with the router.

Background/Preparation

HyperTerminal is a simple Windows-based terminal emulation program that can be used to connect to the console port on the router. A PC with HyperTerminal provides a keyboard and monitor for the router. Connecting to the console port with a rollover cable and using HyperTerminal is the most basic way to access a router for checking or changing its configuration.

Set up a network similar to the one in the diagram. Any router that meets the interface requirements may be used. Possible routers include 800, 1600, 1700, 2500, 2600 routers, or a combination. The following resources will be required:

- Workstation with a serial interface and HyperTerminal
- Cisco Router
- Console (rollover) cable for connecting the workstation to the router

Step 1 Basic router configuration

- Connect a rollover cable to the console port on the router and the other end to the PC with a DB-9 or DB-25 adapter to the COM 1 port. This should be completed prior to powering on any devices.

Step 2 Start HyperTerminal program

- a. Turn on the computer and router.
- b. From the Windows taskbar, locate the HyperTerminal program:
Start > Programs > Accessories > Communications > Hyper Terminal

Step 3 Name the HyperTerminal session

- a. At the “Connection Description” popup, enter a name in the connection *Name*: field and select **OK**.



Step 4 Specify the computers connecting interface

- a. At the “Connect To” popup, use the drop down arrow in the *Connect using*: field to select **COM1** and select **OK**.

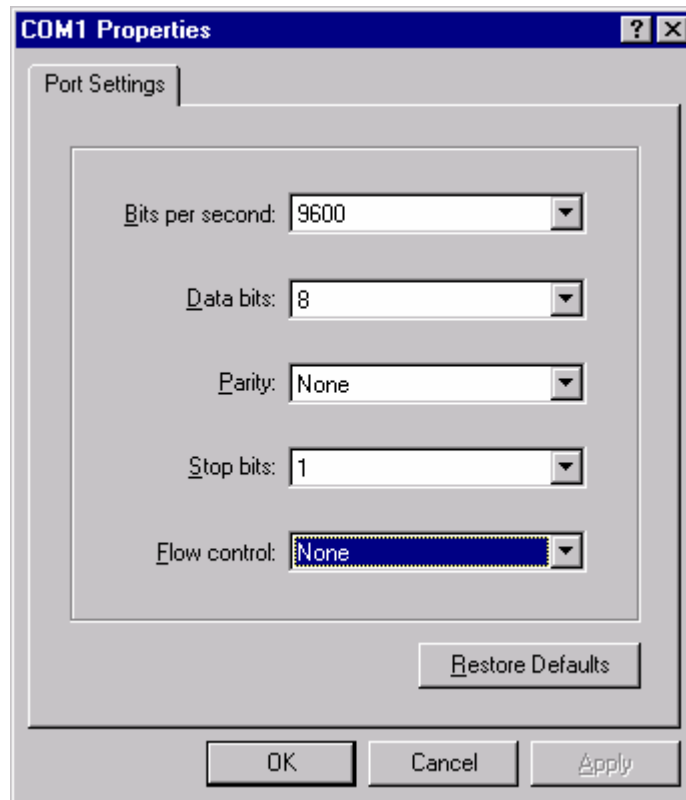


Step 5 Specify the interface connection properties

- a. At the “COM1 Properties” popup, use the drop down arrows to select:

Bits per second: **9600**
Data bits: **8**
Parity: **None**
Stop bits: **1**
Flow control: **None**

Then select **OK**.

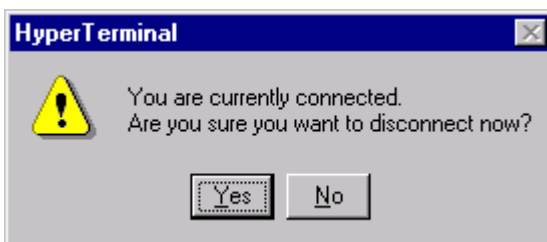


- b. When the HyperTerminal session window comes up, turn on the router. If the router is already on, press the **Enter** key. There should be a response from the router.

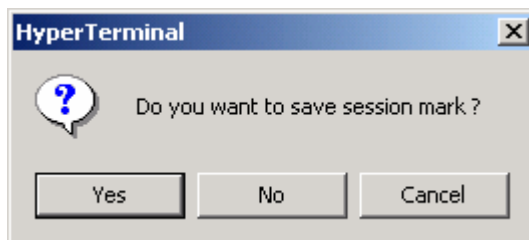
If there is, then the connection has been successfully completed. If there is no connection, troubleshoot as necessary. For example, verify that the router has power. Check the connection to the COM 1 port on the PC and the console port on the router. If there is still no connection, ask the instructor for assistance.
- c. Record in the engineering journal the correct procedure for establishing a console session with the router.

Step 6 Closing the session

- a. To end the console session from a HyperTerminal session, select:
File > Exit
- b. When the HyperTerminal disconnect warning popup appears, select **Yes**.

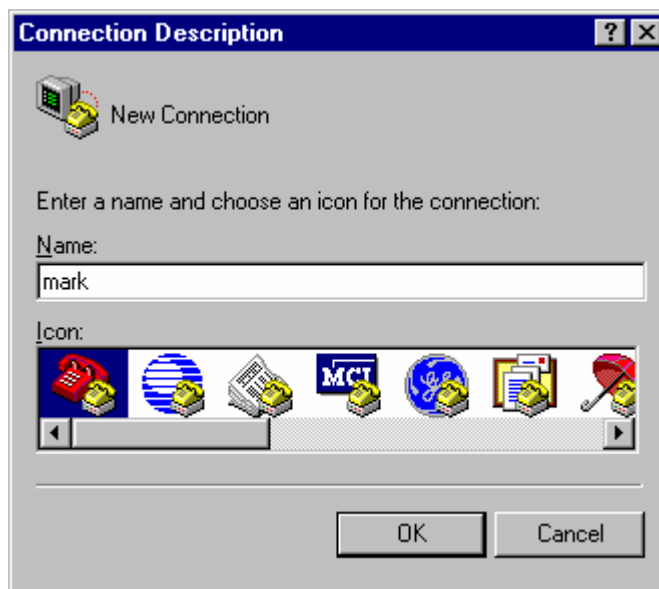


- c. The computer will then ask if the session is to be saved. Select **Yes**.



Step 7 Reopen the HyperTerminal connection, as shown in Step 2

- a. At the "Connection Description" popup, select **Cancel**.



- b. To open the saved console session from HyperTerminal, select:

File > Open

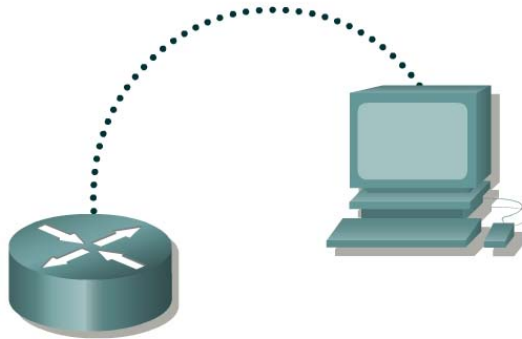
The saved session will now appear and by double-clicking on the name, the connection will open without reconfiguring it each time.

Step 8 Terminating the HyperTerminal session

- Close HyperTerminal.
- Shut down the router.



Lab 2.2.4 Establishing a Console Session with HyperTerminal – Instructor Version 2600



Straight-through cable	—————
Serial cable	————— ⚡
Console (Rollover)
Crossover cable	- - - - -

Objective

- Connect a router and workstation using a console cable.
- Configure HyperTerminal to establish a console session with the router.

Background/Preparation

HyperTerminal is a simple Windows-based terminal emulation program that can be used to connect to the console port on the router. A PC with HyperTerminal provides a keyboard and monitor for the router. Connecting to the console port with a rollover cable and using HyperTerminal is the most basic way to access a router for checking or changing its configuration.

Set up a network similar to the one in the diagram. Any router that meets the interface requirements may be used. Possible routers include 800, 1600, 1700, 2500, 2600 routers, or a combination. The following resources will be required:

- Workstation with a serial interface and HyperTerminal
- Cisco Router
- Console (rollover) cable for connecting the workstation to the router

Step 1 Basic router configuration

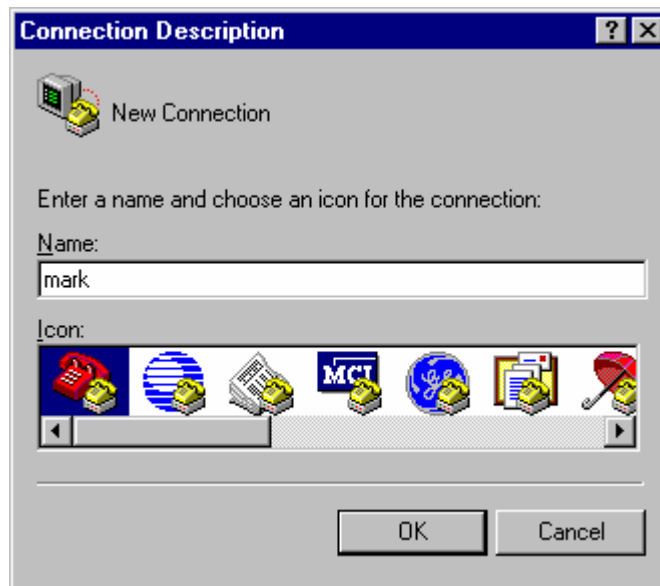
- a. Connect a rollover cable to the console port on the router and the other end to the PC with a DB-9 or DB-25 adapter to the COM 1 port. This should be completed prior to powering on any devices.

Step 2 Start HyperTerminal program

- a. Turn on the computer and router.
- b. From the Windows taskbar, locate the HyperTerminal program:
Start > Programs > Accessories > Communications > Hyper Terminal

Step 3 Name the HyperTerminal session

- a. At the “Connection Description” popup, enter a name in the connection *Name:* field and select **OK**.



Step 4 Specify the computers connecting interface

- a. At the “Connect To” popup, use the drop down arrow in the *Connect using:* field to select **COM1** and select **OK**.

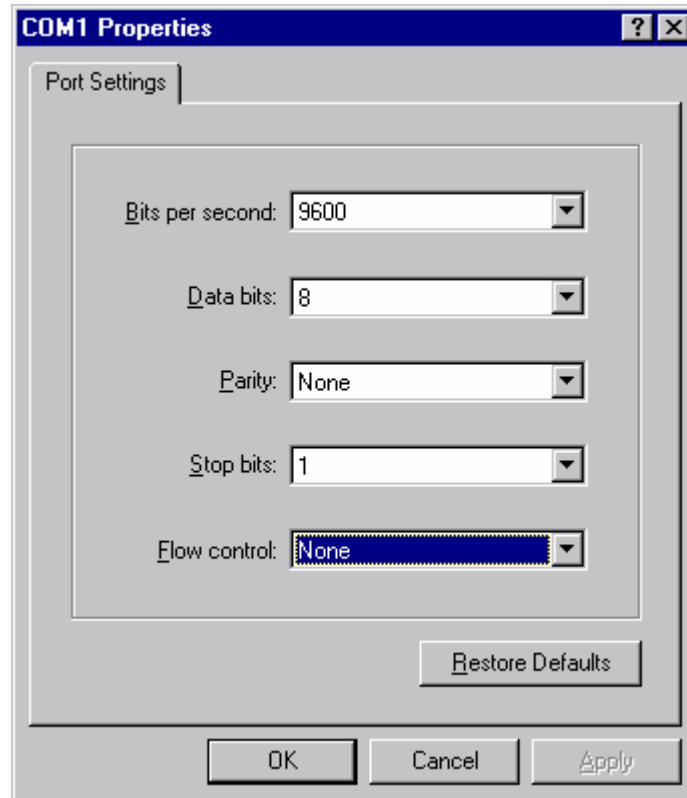


Step 5 Specify the interface connection properties

- a. At the “COM1 Properties” popup, use the drop down arrows to select:

Bits per second: **9600**
Data bits: **8**
Parity: **None**
Stop bits: **1**
Flow control: **None**

Then select **OK**.

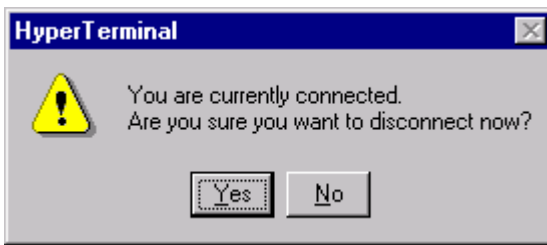


- b. When the HyperTerminal session window comes up, turn on the router. If the router is already on, press the **Enter** key. There should be a response from the router.

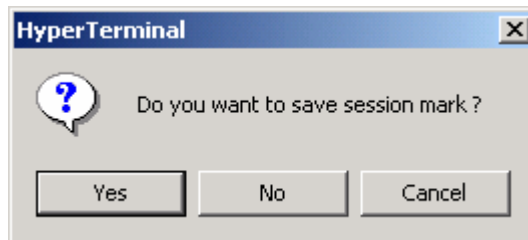
If there is, then the connection has been successfully completed. If there is no connection, troubleshoot as necessary. For example, verify that the router has power. Check the connection to the COM 1 port on the PC and the console port on the router. If there is still no connection, ask the instructor for assistance.
- c. Record in the engineering journal the correct procedure for establishing a console session with the router.

Step 6 Closing the session

- a. To end the console session from a HyperTerminal session, select:
File > Exit
- b. When the HyperTerminal disconnect warning popup appears, select **Yes**.

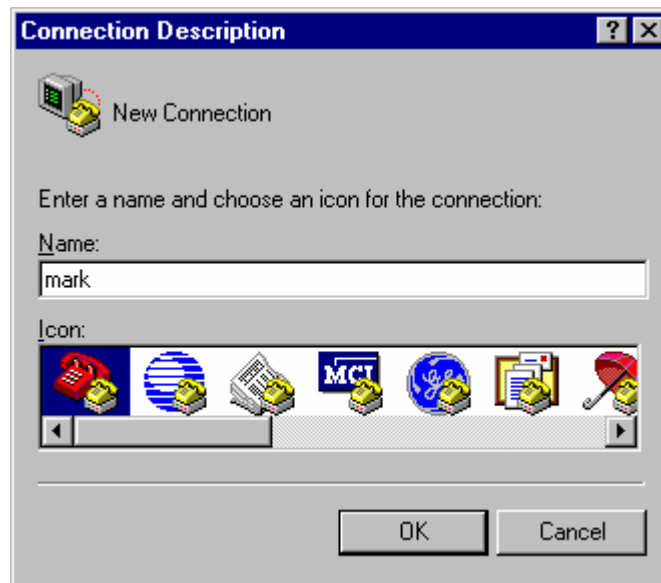


- c. The computer will then ask if the session is to be saved. Select **Yes**.



Step 7 Reopen the HyperTerminal connection, as shown in Step 2

- a. At the "Connection Description" popup, select **Cancel**.



- b. To open the saved console session from HyperTerminal, select:

File > Open

The saved session will now appear and by double-clicking on the name, the connection will open without reconfiguring it each time.

Step 8 Terminating the HyperTerminal session

- Close HyperTerminal.
- Shut down the router.