Lab 3.1.2 Command Modes and Router Identification
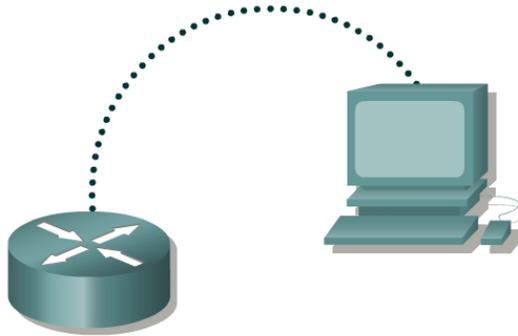
Straight-through cable	————————
Serial cable	⟋⟋⟋
Console (Rollover)	••••••••••••••••••
Crossover cable	– – – – – – – –

Objective

- Identify basic router modes of user EXEC and privileged EXEC.

- Use commands to enter specific modes.

- Become familiar with the router prompt for each mode.

- Assign a name to the router.

Background/Preparation

Any router that meets the interface requirements may be used. Possible routers include 800, 1600, 1700, 2500, 2600 routers, or a combination. Refer to the chart at the end of the lab to correctly identify the interface identifiers to be used based on the equipment in the lab. The configuration output used in this lab is produced from 1721 series routers. Any other router used may produce slightly different output. The following steps are intended to be executed on each router unless specifically instructed otherwise.

Start a HyperTerminal session as performed in the Establishing a HyperTerminal session lab.

Note: Go to the erase and reload instructions at the end of this lab. Perform those steps before continuing with this lab.

Step 1 Login to the router in user EXEC mode

a.   Connect to the router and login.

b.   What prompt did the router display?

    c.   What does this prompt mean?

_____

Step 2 Login to the router in privileged EXEC mode

    a.   Enter **enable** at the user mode prompt.

       `Router>`**`enable`**

    b.   If prompted for a password, enter the password class.

    c.   What prompt did the router display?

_____

    d.   What does this prompt mean?

_____

Step 3 Enter global configuration mode

    a.   Enter **configure terminal** at the privilege mode prompt.

       `Router#`**`configure terminal`**

    b.   What prompt did the router display? _____

    c.   What does this prompt mean?

_____

Step 4 Enter router configuration mode

    a.   Enter **router rip** at the global configuration mode.

       `Router(config)#`**`router rip`**

    b.   What prompt did the router display? _____

    c.   What does this prompt mean?

_____

Step 5 Exit from router mode and go into interface configuration mode

    a.   Enter **exit** at the prompt to return to global configuration mode.

       `Router(config-router)#`**`exit`**

    b.   Enter **interface serial 0** at the global configuration mode prompt.

       Note: See chart for the interface identifier.

       `Router(config)#`**`interface serial 0`**

    c.   What prompt did the router display? _____

    d.   What does this prompt mean?

_____

    e.   Enter **exit** at the prompt to return to global configuration mode.

       `Router(config-if)#`**`exit`**

Step 6 Assign a name to the router

a. `Router(config)#`**`hostname GAD`**

b. What prompt did the router display? _____

c. What does this prompt mean?

_____

d. What change has occurred in the prompt?

_____

Step 7 Exit the router

a. Enter **`exit`** at the prompt to close out of the router.

   `GAD(config)#`**`exit`**

b. From the privileged EXEC mode, type exit to logoff. Turn the router off.

Erasing and reloading the router

Enter into the privileged EXEC mode by typing **enable**.

If prompted for a password, enter **class**. If "class" does not work, ask the instructor for assistance.

```
Router>enable
```

At the privileged EXEC mode, enter the command **erase startup-config**.

```
Router#erase startup-config
```

The responding line prompt will be:

```
Erasing the nvram filesystem will remove all files! Continue?
[confirm]
```

Press **Enter** to confirm.

The response should be:

```
Erase of nvram: complete
```

Now at the privileged EXEC mode, enter the command **reload**.

```
Router#reload
```

The responding line prompt will be:

```
System configuration has been modified. Save? [yes/no]:
```

Type **n** and then press **Enter**.

The responding line prompt will be:

```
Proceed with reload? [confirm]
```

Press **Enter** to confirm.

In the first line of the response will be:

```
Reload requested by console.
```

After the router has reloaded the line prompt will be:

```
Would you like to enter the initial configuration dialog? [yes/no]:
```

Type **n** and then press **Enter**.

The responding line prompt will be:

```
Press RETURN to get started!
```

Press **Enter**.

The router is ready for the assigned lab to be performed.

Router Interface Summary

Router Model	Ethernet Interface #1	Ethernet Interface #2	Serial Interface #1	Serial Interface #2	Interface #5
800 (806)	Ethernet 0 (E0)	Ethernet 1 (E1)			
1600	Ethernet 0 (E0)	Ethernet 1 (E1)	Serial 0 (S0)	Serial 1 (S1)	
1700	FastEthernet 0 (FA0)	FastEthernet 1 (FA1)	Serial 0 (S0)	Serial 1 (S1)	
2500	Ethernet 0 (E0)	Ethernet 1 (E1)	Serial 0 (S0)	Serial 1 (S1)	
2600	FastEthernet 0/0 (FA0/0)	FastEthernet 0/1 (FA0/1)	Serial 0/0 (S0/0)	Serial 0/1 (S0/1)	
In order to find out exactly how the router is configured, look at the interfaces. This will identify the type of router as well as how many interfaces the router has. There is no way to effectively list all of the combinations of configurations for each router class. What is provided are the identifiers for the possible combinations of interfaces in the device. This interface chart does not include any other type of interface even though a specific router may contain one. An example of this might be an ISDN BRI interface. The string in parenthesis is the legal abbreviation that can be used in IOS command to represent the interface.					