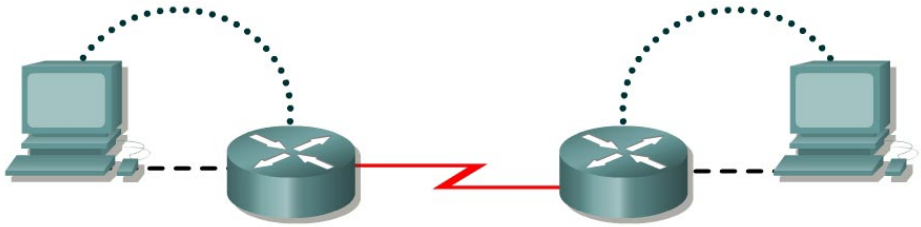
Lab 3.2.9 Backing up Configuration Files – Instructor Version 2500



Router Designation	Router Name	Fast Ethernet 0 Address	Interface type	Serial 0 Address	Subnet mask for both interfaces	Enable secret password	Enable/VTY/ Console passwords
Router 1	GAD	172.16.0.1	DCE	172.17.0.1	255.255.0.0	class	cisco
Router 2	BHM	172.18.0.1	DTE	172.17.0.2	255.255.0.0	class	cisco

Objective

- Demonstrate the capture of the running configuration of a router to an ASCII text file with HyperTerminal.
- Edit or modify the configuration with a text editor such as Notepad.
- Use the edited text file to configure another router using HyperTerminal.
- Cable a network similar to the one in the previous diagram.

Background/Preparation

The HyperTerminal capture option can be very useful not only for configuration files but for capturing command output and for documentation. It is a simple way to save whatever is displayed on the screen of the PC acting as a console to the router.

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.

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Note: Go to the erase and reload instructions at the end of this lab. Perform those steps on all routers in this lab assignment before continuing.

Step 1 Configure the hostname and passwords on the GAD router

a. On the GAD router, enter the global configuration mode. Configure the hostname as shown in the chart. Configure the console, virtual terminal and enable passwords.

Step 2 Configure the interfaces and routing protocol on the GAD router

a. Go to the proper command mode and enter the following:

```
GAD(config)#interface fastethernet 0
GAD(config-if)#ip address 172.16.0.1 255.255.0.0
GAD(config-if)#no shutdown
GAD(config-if)#exit
GAD(config)#interface serial 0
GAD(config-if)#ip address 172.17.0.1 255.255.0.0
GAD(config-if)#clock rate 56000
GAD(config-if)#no shutdown
GAD(config-if)#exit
GAD(config)#router rip
GAD(config-router)#network 172.16.0.0
GAD(config-router)#network 172.17.0.0
GAD(config-router)#exit
GAD(config)#exit
```

Step 3 Save the GAD router configuration

```
GAD#copy running-config startup-config
Destination filename [startup-config]? [Enter]
```

Step 4 Configure the hostname and passwords on the BHM router

a. On the BHM router, enter the global configuration mode. Configure the hostname as shown in the chart. Configure the console, virtual terminal and enable passwords.

Step 5 Configure the interfaces and routing protocol on the BHM router

a. Go to the proper command mode and enter the following:

```
BHM(config)#interface fastethernet 0
BHM(config-if)#ip address 172.18.0.1 255.255.0.0
BHM(config-if)#no shutdown
BHM(config-if)#exit
BHM(config)#interface serial 0
BHM(config-if)#ip address 172.17.0.2 255.255.0.0
BHM(config-if)#no shutdown
BHM(config-if)#exit
BHM(config)#router rip
BHM(config-router)#network 172.17.0.0
BHM(config-router)#network 172.18.0.0
BHM(config-router)#exit
BHM(config)#exit
```

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Step 6 Save the BHM router configuration

```
BHM#copy running-config startup-config

Destination filename [startup-config]? [Enter]
```

Step 7 Verify that the internetwork is functioning

Ping the ~~Fast~~Ethernet interface of the other router.

a. From GAD, can the BHM router ~~Fast~~Ethernet interface be reached? Yes

b. From BHM, can the GAD router ~~Fast~~Ethernet interface be reached? Yes

c. If the answer is no for either question, troubleshoot the router configurations to find the error. Then do the pings again until the answer to both questions is yes.

Step 8 Start capturing the configuration file

a. Start the process of copying the router configuration to a text file.

Use HyperTerminal to capture all text displayed on its screen to a text file.

- In HyperTerminal click on **Transfer**.
- **Capture Text**
- Specify the name of the router for the filename and use **.txt** for the extension. Browse to find a location to store the text file on the computer. This file will be edited and used in later steps of this lab.
- Click on **Start** button to start capturing text.

b. Write down the name and location of this file: a:\gad.txt

c. Enter the **`show running-config`** command. Press the space bar when the **`"- More -"`** prompt appears. The **`show running-config`** command is used to display the active configuration file for the router that is stored in RAM.

Step 9 Stop capturing the configuration file

a. To discontinue capturing the output of the router configuration to a text file:

On the HyperTerminal menu bar select **Transfer** > **Capture text** > **Stop**.

Step 10 Clean up captured configuration file

a. The captured text file will have information not required for configuring a router. For example, the **`"- More -"`** prompts are not required for configuring a router. To put this in a form to be "pasted" back in the router, remove any unnecessary information from the captured configuration.

b. To add comments into the configuration to explain its various parts, use the exclamation mark "**!**". The router will ignore any comment in a router configuration that starts with an exclamation mark. Therefore, write any kind of comment that helps to understand the configuration.

c. Start Notepad. From the Windows Desktop select:

- **Start**
- **Run**
- Type **Notepad**
- Press the **Enter** key

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d. In Notepad click on:

- **File**
- **Open**
- Find the file made and select it.
- Click **Open**.

e. Delete the lines that contain:

- Show running-config
- Building configuration
- Current configuration:
- - More -
- Lines that appear after the word "End"

f. At the end of each of the interface sections add:

- no shutdown

Example:

```
interface Serial 0
ip address 199.6.13.1 255.255.255.0
no shutdown
```

g. The last line to edit is the:

`enable secret 5 $1$prts$Rbf8hxlss.ZrufvI7rMVy/`

change this to:

`enable secret class`

This password must be entered in clear text or the encryption algorithm will re-encrypt the current password. Then entry from the user prompt will be impossible.

h. Save the clean version of the configuration by clicking on **File** > **Save** and exit Notepad.

Step 11 Test the backup configuration

a. Any form of backup that has not been tested could be a liability in a failure situation. This includes backup configurations. The backup configuration must be tested. The test should be scheduled during low network usage periods as the router will have to be taken off line. All users that may be affected should be notified well in advance to ensure that the down time will not be an inconvenience.

b. Before testing the backup configuration, erase the startup configuration. From the HyperTerminal session, enter the command **`erase startup-config`** at the enable router prompt. This deletes the configuration file from NVRAM.

Confirm that startup configuration has been deleted. Enter **`show startup-config`** at the router prompt.

c. What does the router show after this command is entered? startup-config is not present.

Step 12 Restart the router to remove the running configuration

a. Enter reload at the privileged EXEC mode prompt to reboot the router.

- If prompted that the configuration has been modified. Save? type **N** and press **Enter**.
- When asked to proceed with the reload, enter **Y** and press the **Enter** key.
- When the router restarts, note that the router displays the message:

```
"Notice: NVRAM invalid, possibly due to write erase."
```

- When prompted to enter the initial configuration dialog, type **N** and press **Enter**.

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- When prompted to terminate autoinstall type **Y** and press **Enter**.
- Press **Enter** again.

b. What does the prompt look like? `Router>`

Step 13 Reconfigure the router from the saved text file

Use the **`send file`** command in HyperTerminal to restore the new configuration. The edited version of the router configuration file from the previous step will be copied into the area of memory known as the clipboard.

a. Change to privileged EXEC mode.

b. Why was a password not required? No password is currently set.

c. Enter global config mode:

- Enter the command **`configure terminal`**.
- Click on Transfer > Send Text File.
- Select the file.
- Each line in the text file will be entered.
- Observe for any errors.

d. What is the most obvious indication that the router has been restored? Hostname changed to GAD. Press **Ctrl-Z** to exit global configuration mode.

e. Save new configuration file as the startup configuration in NVRAM. Use the command **`copy running-config startup-config`** to save the newly created router configuration.
- Verify that the running configuration is correct by using the **`show running-config`** command.

Step 14 Verify that the internetwork is functioning again

Ping the ~~Fast~~Ethernet interface of the other router.

a. Use the **`reload`** command to restart the router. Verify that the new configuration has been saved to NVRAM by restarting the router.

When prompted to confirm, press **Y**. This will restart the router.

Once the router restarts, press the **Enter** key again.

b. From GAD, can the BHM ~~Fast~~Ethernet interface be pinged? Yes

c. From BHM, can the GAD ~~Fast~~Ethernet interface be pinged? Yes

d. If the answer is no for either question, troubleshoot the router configurations to find the error. Then perform the pings again until the answer to both questions is yes.

Upon completion of the previous steps, logoff by typing **exit**. Turn the router off.

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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.

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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.					

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```
GAD#show running-config
Building configuration...

Current configuration : 658 bytes
!
version 12.1
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname GAD
!
enable secret 5 $1$uZBC$kJCHWi1EBJ/fkeiH9Fu55.
enable password cisco
!
ip subnet-zero
!
interface Ethernet0
 ip address 172.16.0.1 255.255.0.0
!
interface Serial0
 ip address 172.17.0.1 255.255.0.0
 no fair-queue
 clockrate 56000
!
interface Serial1
 no ip address
 shutdown
!
router rip
 network 172.16.0.0
 network 172.17.0.0
!
ip classless
ip http server
!
!
line con 0
 password cisco
 login
line aux 0
line vty 0 4
 password cisco
 login
!
end
```

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```
BHM#show running-config
Building configuration...

Current configuration : 673 bytes
!
version 12.1
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname BHM
!
enable secret 5 $1$lPWe$uuhkHAaAQzLoCqPmvVv5m.
enable password cisco
!
ip subnet-zero
!
interface Ethernet0
 ip address 172.18.0.1 255.255.0.0
!
interface Serial0
 no ip address
 no fair-queue
!
interface Serial1
 ip address 172.17.0.2 255.255.0.0
!
interface BRI0
 no ip address
 shutdown
!
router rip
 network 172.17.0.0
 network 172.18.0.0
!
ip classless
ip http server
!
!
line con 0
 password cisco
 login
line aux 0
line vty 0 4
 password cisco
 login
!
end
```

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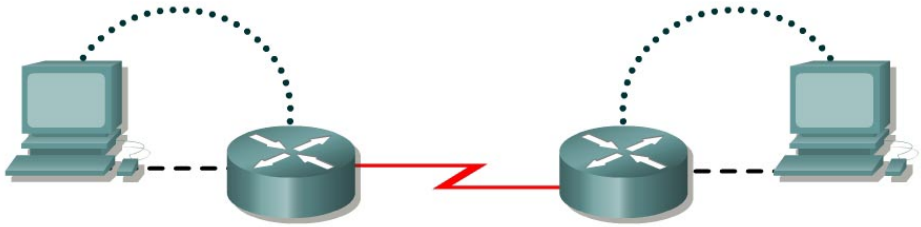
Lab 3.2.9 Backing up Configuration Files – Instructor Version 2600



Router Designation	Router Name	Fast Ethernet 0 Address	Interface type	Serial 0 Address	Subnet mask for both interfaces	Enable secret password	Enable/VTY/ Console passwords
Router 1	GAD	172.16.0.1	DCE	172.17.0.1	255.255.0.0	class	cisco
Router 2	BHM	172.18.0.1	DTE	172.17.0.2	255.255.0.0	class	cisco

Objective

- Demonstrate the capture of the running configuration of a router to an ASCII text file with HyperTerminal.
- Edit or modify the configuration with a text editor such as Notepad.
- Use the edited text file to configure another router using HyperTerminal.
- Cable a network similar to the one in the previous diagram.

Background/Preparation

The HyperTerminal capture option can be very useful not only for configuration files but for capturing command output and for documentation. It is a simple way to save whatever is displayed on the screen of the PC acting as a console to the router.

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.

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Note: Go to the erase and reload instructions at the end of this lab. Perform those steps on all routers in this lab assignment before continuing.

Step 1 Configure the hostname and passwords on the GAD router

a. On the GAD router, enter the global configuration mode. Configure the hostname as shown in the chart. Configure the console, virtual terminal and enable passwords.

Step 2 Configure the interfaces and routing protocol on the GAD router

a. Go to the proper command mode and enter the following:

```
GAD(config)#interface fastethernet 0/0
GAD(config-if)#ip address 172.16.0.1 255.255.0.0
GAD(config-if)#no shutdown
GAD(config-if)#exit
GAD(config)#interface serial 0/0
GAD(config-if)#ip address 172.17.0.1 255.255.0.0
GAD(config-if)#clock rate 56000
GAD(config-if)#no shutdown
GAD(config-if)#exit
GAD(config)#router rip
GAD(config-router)#network 172.16.0.0
GAD(config-router)#network 172.17.0.0
GAD(config-router)#exit
GAD(config)#exit
```

Step 3 Save the GAD router configuration

```
GAD#copy running-config startup-config
Destination filename [startup-config]? [Enter]
```

Step 4 Configure the hostname and passwords on the BHM router

a. On the BHM router, enter the global configuration mode. Configure the hostname as shown in the chart. Configure the console, virtual terminal and enable passwords.

Step 5 Configure the interfaces and routing protocol on the BHM router

a. Go to the proper command mode and enter the following:

```
BHM(config)#interface fastethernet 0/0
BHM(config-if)#ip address 172.18.0.1 255.255.0.0
BHM(config-if)#no shutdown
BHM(config-if)#exit
BHM(config)#interface serial 0/0
BHM(config-if)#ip address 172.17.0.2 255.255.0.0
BHM(config-if)#no shutdown
BHM(config-if)#exit
BHM(config)#router rip
BHM(config-router)#network 172.17.0.0
BHM(config-router)#network 172.18.0.0
BHM(config-router)#exit
BHM(config)#exit
```

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Step 6 Save the BHM router configuration

```
BHM#copy running-config startup-config

Destination filename [startup-config]? [Enter]
```

Step 7 Verify that the internetwork is functioning

Ping the FastEthernet interface of the other router.

a. From GAD, can the BHM router FastEthernet interface be reached? Yes

b. From BHM, can the GAD router FastEthernet interface be reached? Yes

c. If the answer is no for either question, troubleshoot the router configurations to find the error. Then do the pings again until the answer to both questions is yes.

Step 8 Start capturing the configuration file

a. Start the process of copying the router configuration to a text file.

Use HyperTerminal to capture all text displayed on its screen to a text file.

- In HyperTerminal click on **Transfer**.
- **Capture Text**
- Specify the name of the router for the filename and use **.txt** for the extension. Browse to find a location to store the text file on the computer. This file will be edited and used in later steps of this lab.
- Click on **Start** button to start capturing text.

b. Write down the name and location of this file: a:\gad.txt

c. Enter the **`show running-config`** command. Press the space bar when the **`"- More -"`** prompt appears. The **`show running-config`** command is used to display the active configuration file for the router that is stored in RAM.

Step 9 Stop capturing the configuration file

a. To discontinue capturing the output of the router configuration to a text file:

On the HyperTerminal menu bar select **Transfer** > **Capture text** > **Stop**.

Step 10 Clean up captured configuration file

a. The captured text file will have information not required for configuring a router. For example, the **`"- More -"`** prompts are not required for configuring a router. To put this in a form to be "pasted" back in the router, remove any unnecessary information from the captured configuration.

b. To add comments into the configuration to explain its various parts, use the exclamation mark "**!**". The router will ignore any comment in a router configuration that starts with an exclamation mark. Therefore, write any kind of comment that helps to understand the configuration.

c. Start Notepad. From the Windows Desktop select:

- **Start**
- **Run**
- Type **Notepad**
- Press the **Enter** key

d. In Notepad click on:

- **File**

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- **Open**
- Find the file made and select it.
- Click **Open**.

e. Delete the lines that contain:

- Show running-config
- Building configuration
- Current configuration:
- - More -
- Lines that appear after the word "End"

f. At the end of each of the interface sections add:

- no shutdown

Example:

```
interface Serial 0/0
ip address 199.6.13.1 255.255.255.0
no shutdown
```

g. The last line to edit is the:

enable secret 5 1prts$Rbf8hxlss.ZrufvI7rMVy/

change this to:

enable secret class

This password must be entered in clear text or the encryption algorithm will re-encrypt the current password. Then entry from the user prompt will be impossible.

h. Save the clean version of the configuration by clicking on **File** > **Save** and exit Notepad.

Step 11 Test the backup configuration

a. Any form of backup that has not been tested could be a liability in a failure situation. This includes backup configurations. The backup configuration must be tested. The test should be scheduled during low network usage periods as the router will have to be taken off line. All users that may be affected should be notified well in advance to ensure that the down time will not be an inconvenience.

b. Before testing the backup configuration, erase the startup configuration. From the HyperTerminal session, enter the command **erase startup-config** at the enable router prompt. This deletes the configuration file from NVRAM.

Confirm that startup configuration has been deleted. Enter **show startup-config** at the router prompt.

c. What does the router show after this command is entered? startup-config is not present.

Step 12 Restart the router to remove the running configuration

a. Enter reload at the privileged EXEC mode prompt to reboot the router.

- If prompted that the configuration has been modified. Save? type **N** and press **Enter**.
- When asked to proceed with the reload, enter **Y** and press the **Enter** key.
- When the router restarts, note that the router displays the message:

```
"Notice: NVRAM invalid, possibly due to write erase."
```

- When prompted to enter the initial configuration dialog, type **N** and press **Enter**.
- When prompted to terminate autoinstall type **Y** and press **Enter**.
- Press **Enter** again.

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b. What does the prompt look like? `Router>`

Step 13 Reconfigure the router from the saved text file

Use the **`send file`** command in HyperTerminal to restore the new configuration. The edited version of the router configuration file from the previous step will be copied into the area of memory known as the clipboard.

a. Change to privileged EXEC mode.

b. Why was a password not required? No password is currently set.

c. Enter global config mode:

- Enter the command **`configure terminal`**.
- Click on Transfer > Send Text File.
- Select the file.
- Each line in the text file will be entered.
- Observe for any errors.

d. What is the most obvious indication that the router has been restored? Hostname changed to GAD. Press **Ctrl-Z** to exit global configuration mode.

e. Save new configuration file as the startup configuration in NVRAM. Use the command **`copy running-config startup-config`** to save the newly created router configuration.

- Verify that the running configuration is correct by using the **`show running-config`** command.

Step 14 Verify that the internetwork is functioning again

Ping the FastEthernet interface of the other router.

a. Use the **`reload`** command to restart the router. Verify that the new configuration has been saved to NVRAM by restarting the router.

When prompted to confirm, press **Y**. This will restart the router.

Once the router restarts, press the **Enter** key again.

b. From GAD, can the BHM FastEthernet interface be pinged? Yes

c. From BHM, can the GAD FastEthernet interface be pinged? Yes

d. If the answer is no for either question, troubleshoot the router configurations to find the error. Then perform the pings again until the answer to both questions is yes.

Upon completion of the previous steps, logoff by typing **exit**. Turn the router off.

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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.

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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.					

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```
GAD#show running-config
Building configuration...

Current configuration : 752 bytes
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname GAD
!
enable secret 5 $1$FYpA$idSON9mhLAoquwVeFTiS51
enable password cisco
!
ip subnet-zero
!
call rsvp-sync
!
interface FastEthernet0/0
 ip address 172.16.0.1 255.255.0.0
 duplex auto
 speed auto
!
interface Serial0/0
 ip address 172.17.0.1 255.255.0.0
 no fair-queue
 clockrate 56000
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
interface Serial0/1
 no ip address
 shutdown
!
router rip
 network 172.16.0.0
 network 172.17.0.0
!
ip classless
ip http server
!
!
dial-peer cor custom
!
line con 0
 password cisco
 login
line aux 0
line vty 0 4
 password cisco
 login
!
end
```

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```
BHM#show running-config
Building configuration...

Current configuration : 720 bytes
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname BHM
!
enable secret 5 $1$mSLr$xGa6grG9ihYdTDOt2FBxj.
enable password cisco
!
ip subnet-zero
!
call rsvp-sync
!
interface FastEthernet0/0
 ip address 172.18.0.1 255.255.0.0
 duplex auto
 speed auto
!
interface Serial0/0
 no ip address
 shutdown
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
interface Serial0/1
 ip address 172.17.0.2 255.255.0.0
!
router rip
 network 172.17.0.0
 network 172.18.0.0
!
ip classless
ip http server
!
!
dial-peer cor custom
!
line con 0
 password cisco
 login
line aux 0
line vty 0 4
 password cisco
 login
!
end
```

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Captured Text (edited)

```
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname GAD
!
enable secret class
enable password cisco
!
ip subnet-zero
!
call rsvp-sync
!
interface FastEthernet0/0
  ip address 172.16.0.1 255.255.0.0
  no shutdown
  duplex auto
  speed auto
!
interface Serial0/0
  ip address 172.17.0.1 255.255.0.0
  no fair-queue
  clockrate 56000
  no shutdown
!
interface FastEthernet0/1
  no ip address
  shutdown
  duplex auto
  speed auto
!
interface Serial0/1
  no ip address
  shutdown
!
router rip
  network 172.16.0.0
  network 172.17.0.0
!
ip classless
ip http server
!
dial-peer cor custom
!
line con 0
 password cisco
 login
line aux 0
line vty 0 4
 password cisco
 login
!
end
```

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