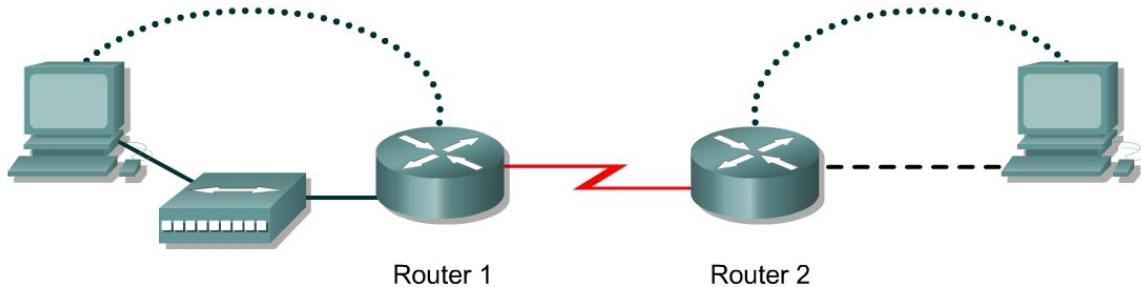
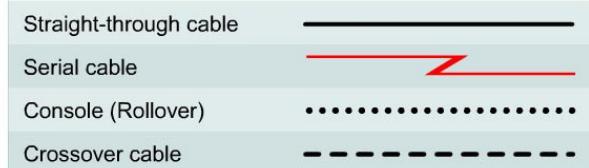


Lab 7.3.5 Configuring IGRP – Instructor Version 2500



Router Designation	Router Name	Fast Ethernet 0 Address	Interface type	Serial 0 Address	Subnet mask for both interfaces	Enable secret password	Enable, VTY and console password
Router 1	GAD	192.168.20.1	DCE	192.168.22.1	255.255.255.0	class	cisco
Router 2	BHM	192.168.25.1	DTE	192.168.22.2	255.255.255.0	class	cisco



Objective

- Setup IP addressing scheme using class C networks.
- Configure IGRP on routers.

Background/Preparation

Cable a network similar to the one in the diagram. Any router that meets the interface requirements displayed in the above diagram, such as 800, 1600, 1700, 2500, and 2600 routers, or a combination, may be used. Please 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 a 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 on all routers in this lab assignment before continuing.

Step 1 Configure the routers

- a. On the routers, enter the global configuration mode and configure the hostname as shown in the chart. Then configure the console, virtual terminal, and enable passwords. If there is a problem doing this, refer to the Configuring Router Passwords lab. Next configure the interfaces according to the chart. If there is a problem doing this, refer to the Configuring Host Tables lab.

Step 2 Configure the routing protocol on the GAD router

- a. Configure IGRP using AS 101 on GAD. Go to the proper command mode and enter the following:

```
GAD(config)#router igrp 101
GAD(config-router)#network 192.168.22.0
GAD(config-router)#network 192.168.20.0
```

Step 3 Save the GAD router configuration

```
GAD#copy running-config startup-config
```

Step 4 Configure the routing protocol on the BHM router

- a. Configure IGRP using AS 101 on BHM. Go to the proper command mode and enter the following:

```
BHM(config)#router igrp 101
BHM(config-router)#network 192.168.25.0
BHM(config-router)#network 192.168.22.0
```

Step 5 Save the BHM router configuration

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

Step 6 Configure the hosts with the proper IP address, subnet mask and default gateway

Step 7 Verify that the internetwork is functioning by pinging the **FastEthernet** interface of the other router

- a. From the host attached to GAD, is it possible to ping the BHM host? [Yes](#)
- b. From the host attached to BHM, is it possible to ping the GAD host? [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 Show the routing tables for each router

- a. From the enable or privileged exec mode do the following:
 - b. Examine the routing table entries by using the `show ip route` command on each router.
 - c. What are the entries in the GAD routing table?
[Connected 192.168.20.0](#) [Connected 172.17.0.0 | \(igrp\) 192.168.25.0](#)
 - d. What are the entries in the BHM routing table?
[Connected 172.17.0.0](#) [Connected 192.168.25.0 | \(igrp\) 192.168.20.0](#)

Step 9 Verify the routing protocol

- a. Type `show ip protocol` on both routers to verify IGRP is running and that it is the only protocol running.
- b. Is IGRP the only protocol running on GAD? Yes
- c. Is IGRP the only Protocol running on BHM? Yes

Step 10 Verify IGRP statements in the running configuration of both routers

- a. Use the `show run | begin igrp` command on both routers.
- b. List the IGRP part of the configuration for GAD:

```
router igrp 101  
network 192.168.20.0  
network 172.17.0.0
```

Step 11 Verify IGRP routing updates

- a. Type `debug ip igrp events` on the GAD router at the privileged exec mode.
- b. Are routing updates being displayed? Yes
- c. Where are the updates being sent to? 255.255.255.255
- d. Where are the updates being received from? 172.17.0.2
- e. Turn off debugging.

Step 12 Verify IGRP routing updates

- a. Type `debug ip igrp transactions` on the GAD router at the privileged exec mode.
- b. How are the outputs of these two debug commands `debug ip igrp events` and `debug ip igrp transactions` different?

debug ip igrp events shows updates and information about those updates and debug ip igrp transactions shows updates, network information, and metric information
- c. Turn off debugging.

Step 13 Analyze specific routes

These answers may vary.

- a. Type `show ip route 192.168.25.0` on the GAD router at the privileged exec mode
- b. What is the total delay for this route? 21000 microseconds
- c. What is the minimum bandwidth? minimum bandwidth is 1544 Kbit
- d. What is the Reliability of this route? Reliability 187/255
- e. What is the minimum MTU size for this route? minimum MTU 1500 bytes
- f. Type `show ip route 192.168.25.1` on the BHM router at the privileged EXEC mode.
- g. What is the total delay for this route? None listed because it is a connected route.
- h. What is the minimum bandwidth? None listed because it is a connected route.
- i. What is the Reliability of this route? None listed because it is a connected route.
- j. What is the minimum MTU size for this route? None listed because it is a connected route.

Upon completion of the previous steps, log off by typing `exit` and 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 **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 **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.

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

Current configuration:
!
version 12.0
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname GAD
!
enable secret 5 $1$HCww$MPv2SeZSoulZbI2ULmwBN.
!
ip subnet-zero
!
interface Ethernet0
 ip address 192.168.20.1 255.255.255.0
 no ip directed-broadcast
!
interface Serial0
 ip address 172.17.0.1 255.255.255.0
 no ip directed-broadcast
 no ip mroute-cache
 no fair-queue
 clockrate 56000
!
interface Serial1
 no ip address
 no ip directed-broadcast
 shutdown
!
router igrp 101
 network 192.168.20.0
 network 172.17.0.0
!
no ip classless
ip http server
!
line con 0
 exec-timeout 0 0
 password cisco
 login
 transport input none
line aux 0
 password cisco
 login
line vty 0 4
 password cisco
 login
!
end
```

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

Current configuration:
!
version 12.0
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname BHM
!
enable secret 5 $1$IZR.$HkRSV8TmMTDuAWcw/QbV10
!
ip subnet-zero
ip host GAD 192.168.20.1 172.17.0.1
!
!
interface Ethernet0
  ip address 192.168.25.1 255.255.255.0
  no ip directed-broadcast
!
interface Serial0
  ip address 172.17.0.2 255.255.255.0
  no ip directed-broadcast
  no ip mroute-cache
  no fair-queue
!
interface Serial1
  no ip address
  no ip directed-broadcast
  shutdown
  no fair-queue
!
!
router igrp 101
  network 172.17.0.0
  network 192.168.25.0
!
no ip classless
no ip http server
!
!
line con 0
  exec-timeout 0 0
  password cisco
  login
  transport input none
line aux 0
line vty 0 4
  password cisco
  login
!
end
```

BHM#show ip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route

Gateway of last resort is not set

C 192.168.25.0/24 is directly connected, Ethernet0
I 192.168.20.0/24 [100/8576] via 172.17.0.1, 00:00:14, Serial0
C 172.17.0.0/24 is directly connected, Serial0

GAD#show ip protocols

Routing Protocol is "igrp 101"
 Sending updates every 90 seconds, next due in 72 seconds
 Invalid after 270 seconds, hold down 280, flushed after 630
 Outgoing update filter list for all interfaces is
 Incoming update filter list for all interfaces is
 Default networks flagged in outgoing updates
 Default networks accepted from incoming updates
 IGRP metric weight K1=1, K2=0, K3=1, K4=0, K5=0
 IGRP maximum hopcount 100
 IGRP maximum metric variance 1
 Redistributing: igrp 101
 Routing for Networks:
 192.168.20.0
 172.17.0.0
 Routing Information Sources:
 Gateway Distance Last Update
 172.17.0.2 100 00:00:25
 Distance: (default is 100)

GAD#debug ip igrp events

IGRP event debugging is on
GAD#
00:17:43: IGRP: received update from 172.17.0.2 on Serial0
00:17:43: IGRP: Update contains 0 interior, 1 system, and 0 exterior routes.
00:17:43: IGRP: Total routes in update: 1
00:18:04: IGRP: sending update to 255.255.255.255 via Ethernet0 (192.168.20.1)
00:18:04: IGRP: Update contains 0 interior, 2 system, and 0 exterior routes.
00:18:04: IGRP: Total routes in update: 2
00:18:04: IGRP: sending update to 255.255.255.255 via Serial0 (172.17.0.1)
00:18:04: IGRP: Update contains 0 interior, 1 system, and 0 exterior routes.
00:18:04: IGRP: Total routes in update: 1

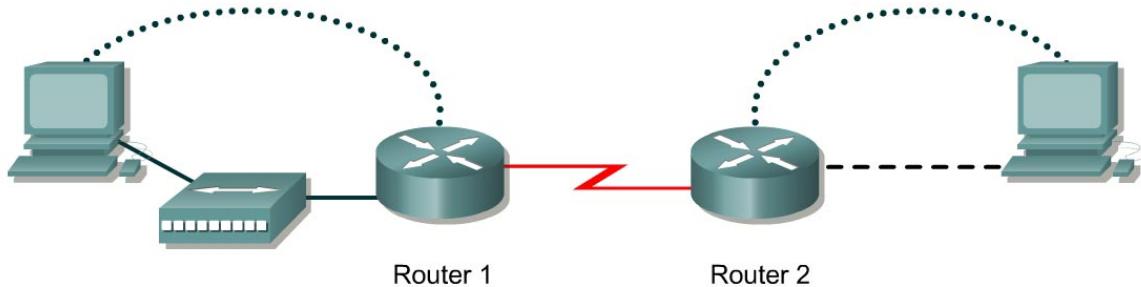
GAD#debug ip igrp transactions

IGRP protocol debugging is on
GAD#
00:24:53: IGRP: sending update to 255.255.255.255 via Ethernet0 (192.168.20.1)
00:24:53: network 192.168.25.0, metric=8576
00:24:53: network 172.17.0.0, metric=8476
00:24:53: IGRP: sending update to 255.255.255.255 via Serial0 (172.17.0.1)

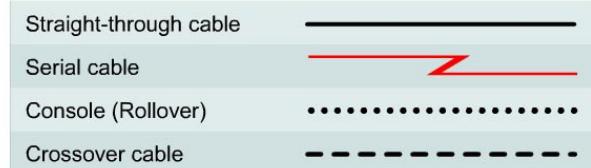
```
00:24:53:      network 192.168.20.0, metric=1100
00:26:07: IGRP: received update from 172.17.0.2 on Serial0
00:26:07:      network 192.168.25.0, metric 8576 (neighbor 1100)
GAD#
```

```
GAD#show ip route 192.168.25.0
Routing entry for 192.168.25.0/24
  Known via "igrp 101", distance 100, metric 8576
  Redistributing via igrp 101
  Advertised by igrp 101 (self originated)
  Last update from 172.17.0.2 on Serial0, 00:00:30 ago
  Routing Descriptor Blocks:
    * 172.17.0.2, from 172.17.0.2, 00:00:30 ago, via Serial0
      Route metric is 8576, traffic share count is 1
      Total delay is 21000 microseconds, minimum bandwidth is 1544 Kbit
      Reliability 179/255, minimum MTU 1500 bytes
      Loading 1/255, Hops 0
```

Lab 7.3.5 Configuring IGRP – 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 and console password
Router 1	GAD	192.168.20.1	DCE	192.168.22.1	255.255.255.0	class	cisco
Router 2	BHM	192.168.25.1	DTE	192.168.22.2	255.255.255.0	class	cisco



Objective

- Setup IP addressing scheme using class C networks.
- Configure IGRP on routers.

Background/Preparation

Cable a network similar to the one in the diagram. Any router that meets the interface requirements displayed in the above diagram, such as 800, 1600, 1700, 2500, and 2600 routers, or a combination, may be used. Please 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 a 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 on all routers in this lab assignment before continuing.

Step 1 Configure the routers

- a. On the routers, enter the global configuration mode and configure the hostname as shown in the chart. Then configure the console, virtual terminal, and enable passwords. If there is a problem doing this, refer to the Configuring Router Passwords lab. Next configure the interfaces according to the chart. If there is a problem doing this, refer to the Configuring Host Tables lab.

Step 2 Configure the routing protocol on the GAD router

- a. Configure IGRP using AS 101 on GAD. Go to the proper command mode and enter the following:

```
GAD(config)#router igrp 101
GAD(config-router)#network 192.168.22.0
GAD(config-router)#network 192.168.20.0
```

Step 3 Save the GAD router configuration

```
GAD#copy running-config startup-config
```

Step 4 Configure the routing protocol on the BHM router

- a. Configure IGRP using AS 101 on BHM. Go to the proper command mode and enter the following:

```
BHM(config)#router igrp 101
BHM(config-router)#network 192.168.25.0
BHM(config-router)#network 192.168.22.0
```

Step 5 Save the BHM router configuration

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

Step 6 Configure the hosts with the proper IP address, subnet mask and default gateway

Step 7 Verify that the internetwork is functioning by pinging the FastEthernet interface of the other router

- a. From the host attached to GAD, is it possible to ping the BHM host? [Yes](#)
- b. From the host attached to BHM, is it possible to ping the GAD host? [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 Show the routing tables for each router

- a. From the enable or privileged exec mode do the following:
 - b. Examine the routing table entries by using the `show ip route` command on each router.
 - c. What are the entries in the GAD routing table?
[Connected 192.168.20.0](#) [Connected 192.168.22.0 | \(igrp\) 192.168.25.0](#)
 - d. What are the entries in the BHM routing table?
[Connected 192.168.22.0](#) [Connected 192.168.25.0 | \(igrp\) 192.168.20.0](#)

Step 9 Verify the routing protocol

- a. Type `show ip protocol` on both routers to verify IGRP is running and that it is the only protocol running.
- b. Is IGRP the only protocol running on GAD? Yes
- c. Is IGRP the only Protocol running on BHM? Yes

Step 10 Verify IGRP statements in the running configuration of both routers

- a. Use the `show run | begin igrp` command on both routers.
- b. List the IGRP part of the configuration for GAD:

```
router igrp 10  
network 192.168.20.0  
network 192.168.22.0
```

Step 11 Verify IGRP routing updates

- a. Type `debug ip igrp events` on the GAD router at the privileged exec mode.
- b. Are routing updates being displayed? Yes
- c. Where are the updates being sent to? 255.255.255.255
- d. Where are the updates being received from? 192.168.22.2
- e. Turn off debugging.

Step 12 Verify IGRP routing updates

- a. Type `debug ip igrp transactions` on the GAD router at the privileged exec mode.
- b. How are the outputs of these two debug commands `debug ip igrp events` and `debug ip igrp transactions` different?
debug ip igrp events shows updates and information about those updates and debug ip igrp transactions shows updates, network information, and metric.
- c. Turn off debugging.

Step 13 Analyze specific routes

These answers may vary.

- a. Type `show ip route 192.168.25.0` on the GAD router at the privileged exec mode
- b. What is the total delay for this route? 21000 microseconds
- c. What is the minimum bandwidth? minimum bandwidth is 1544 Kbit
- d. What is the Reliability of this route? Reliability 187/255
- e. What is the minimum MTU size for this route? minimum MTU 1500 bytes
- f. Type `show ip route 192.168.25.1` on the BHM router at the privileged EXEC mode.
- g. What is the total delay for this route? none listed because it is a connected route
- h. What is the minimum bandwidth? none listed because it is a connected route
- i. What is the Reliability of this route? none listed because it is a connected route
- j. What is the minimum MTU size for this route? none listed because it is a connected route

Upon completion of the previous steps, log off by typing `exit` and 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 **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 **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.

```
GAD#show running-config
!
version 12.0
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname GAD
!
enable secret 5 $1$HCww$MPv2SeZSoulZbI2ULmwBN.
!
ip subnet-zero
!
interface FastEthernet0/0
  ip address 192.168.20.1 255.255.255.0
  no ip directed-broadcast
!
interface Serial0/0
  ip address 192.168.22.1 255.255.255.0
  no ip directed-broadcast
  no ip mroute-cache
  no fair-queue
  clockrate 56000
!
interface Serial0/1
  no ip address
  no ip directed-broadcast
  shutdown
!
router igrp 101
  network 192.168.20.0
  network 192.168.22.0
!
no ip classless
ip http server
!
line con 0
  exec-timeout 0 0
  password cisco
  login
  transport input none
line aux 0
  password cisco
  login
line vty 0 4
  password cisco
  login
!
end
```

```
BHM#show running
!
version 12.0
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname BHM
!
enable secret 5 $1$IZR.$HkRSV8TmMTDuAWcw/QbV10
!
ip subnet-zero
ip host GAD 192.168.20.1 192.168.22.1
!
!
interface FastEthernet0/0
  ip address 192.168.25.1 255.255.255.0
  no ip directed-broadcast
!
interface Serial0/0
  ip address 192.168.22.2 255.255.255.0
  no ip directed-broadcast
  no ip mroute-cache
  no fair-queue
!
interface Serial0/1
  no ip address
  no ip directed-broadcast
  shutdown
  no fair-queue
!
!
router igrp 101
  network 192.168.22.0
  network 192.168.25.0
!
no ip classless
no ip http server
!
!
line con 0
  exec-timeout 0 0
  password cisco
  login
  transport input none
line aux 0
line vty 0 4
  password cisco
  login
!
end
```

BHM#show ip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route

Gateway of last resort is not set

C 192.168.25.0/24 is directly connected, FastEthernet0/0
I 192.168.20.0/24 [100/8576] via 192.168.22.1, 00:00:14, Serial0/0
C 192.168.22.0/24 is directly connected, Serial0/0

BHM#show ip protocols

Routing Protocol is "igrp 101"
 Sending updates every 90 seconds, next due in 44 seconds
 Invalid after 270 seconds, hold down 280, flushed after 630
 Outgoing update filter list for all interfaces is
 Incoming update filter list for all interfaces is
 Default networks flagged in outgoing updates
 Default networks accepted from incoming updates
 IGRP metric weight K1=1, K2=0, K3=1, K4=0, K5=0
 IGRP maximum hopcount 100
 IGRP maximum metric variance 1
 Redistributing: igrp 101
 Routing for Networks:
 192.168.22.0
 192.168.25.0
 Routing Information Sources:
 Gateway Distance Last Update
 192.168.22.1 100 00:00:22
 Distance: (default is 100)

GAD#debug ip igrp events

IGRP event debugging is on
GAD#
00:17:43: IGRP: received update from 192.168.22.2 on Serial0/0
00:17:43: IGRP: Update contains 0 interior, 1 system, and 0 exterior routes.
00:17:43: IGRP: Total routes in update: 1
00:18:04: IGRP: sending update to 255.255.255.255 via FastEthernet0/0
(192.168.20.1)
00:18:04: IGRP: Update contains 0 interior, 2 system, and 0 exterior routes.
00:18:04: IGRP: Total routes in update: 2
00:18:04: IGRP: sending update to 255.255.255.255 via Serial0/0 (192.168.22.1)
00:18:04: IGRP: Update contains 0 interior, 1 system, and 0 exterior routes.
00:18:04: IGRP: Total routes in update: 1

GAD#debug ip igrp transactions

IGRP protocol debugging is on
00:24:53: IGRP: sending update to 255.255.255.255 via Ethernet0/0 (192.168.20.1)
00:24:53: network 192.168.25.0, metric=8576
00:24:53: network 192.168.22.0, metric=8476
00:24:53: IGRP: sending update to 255.255.255.255 via Serial0/0 (192.168.22.1)
00:24:53: network 192.168.20.0, metric=110
00:26:07: IGRP: received update from 192.168.22.2 on Serial0/0
00:26:07: network 192.168.25.0, metric 8576 (neighbor 110)

GAD#show ip route 192.168.25.0

Routing entry for 192.168.25.0/24
Known via "igrp 101", distance 100, metric 8576
Redistributing via igrp 101
Advertised by igrp 101 (self originated)
Last update from 192.168.22.2 on Serial0/0, 00:00:30 ago
Routing Descriptor Blocks:
* 192.168.22.2, from 192.168.22.2, 00:00:30 ago, via Serial0/0
 Route metric is 8576, traffic share count is 1
 Total delay is 21000 microseconds, minimum bandwidth is 1544 Kbit
 Reliability 179/255, minimum MTU 1500 bytes
 Loading 1/255, Hops 0