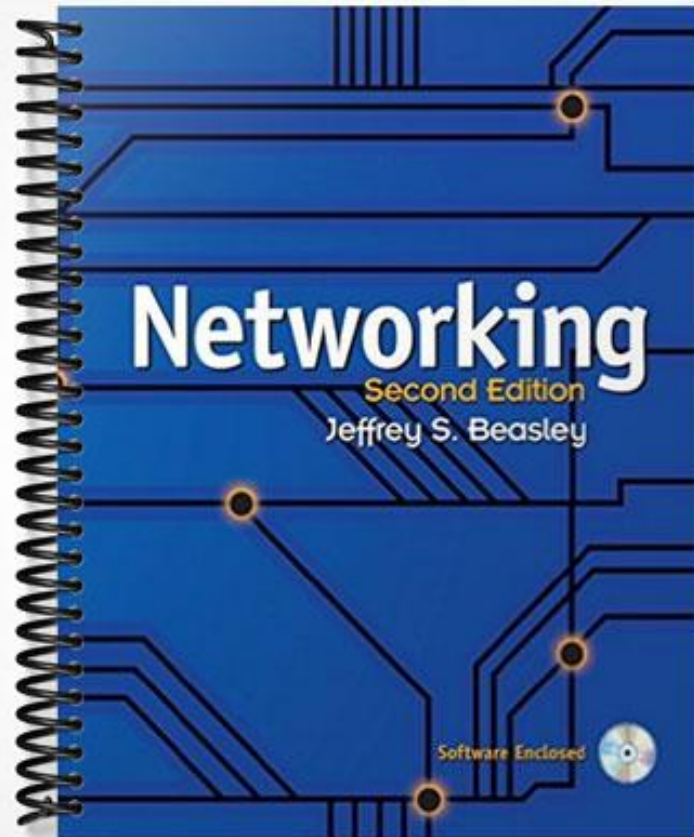


SOLUTIONS MANUAL



Networking

Second Edition

Jeffrey S. Beasley

Software Enclosed

Instructor's Manual
to accompany

NETWORKING

Jeffrey S. Beasley

**Solutions to Net-Challenges
Laboratory Exercises**



Upper Saddle River, New Jersey
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Solutions:**Net-Challenge: User EXEC Mode**

1. click on the RouterA button
2. press the enter key on the keyboard
3. type ? <press enter> as shown, Router> ?
4. type *exit* <press enter> as shown, Router> exit
5. press enter to enter the router's user EXEC mode
6. type *show ?* <press enter> as shown, Router> show ?
7. type *show flash* <press enter> as shown, Router> show flash
8. type *show version* <press enter> as shown, Router> show version
9. type *show history* <press enter> as shown, Router> show history

Solutions:**Net-Challenge: Privileged EXEC Mode**

1. click on the RouterA button
2. Press enter to enter the user EXEC mode then type `enable` or `en` to enter the privileged EXEC mode. There is not a password for this version of Net-Challenge.
Router> enable
Router#
3. from the router# prompt, enter `conf t` (*configure terminal*) <enter>
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
4. enter the command `hostname RouterA` <enter>
Router(config)# hostname RouterA
5. enter `enable secret Chile` <enter>
RouterA(config)# enable secret Chile
6. enter `line vty 0 4` <enter>
`password ConCarne` <enter>
RouterA(config)# line vty 0 4
RouterA(config-line)# password ConCarne
7. enter the following commands
RouterA(config)# int fa0/0
RouterA(config-if)# ip address 10.10.20.250 255.255.255.0
RouterA(config-if)# no shut

enter the following commands
int fa0/1 (this can be entered from the Router(config)# prompt or the
Router(config-if)# prompt
RouterA(config-if)# ip address 10.10.200.1 255.255.255.0
RouterA(config-if)# no shut

enter the following commands
int fa0/2 (this can be entered from the Router(config)# prompt or the
Router(config-if)# prompt
RouterA(config-if)# ip address 10.10.100.1 255.255.255.0
RouterA(config-if)# no shut
8. use the `no shut` command to enable each interface as shown above

Solutions:**Net-Challenge: Privileged EXEC Mode**

9. from the *RouterA#* prompt, enter *show ip interface brief* or *sh ip int brief*
RouterA# show ip interface brief or RouterA# show ip int brief

10. from the RouterA(config)# and the Router(config-if)# prompts enter the following commands
RouterA(config)# int s0/0
RouterA(config-if)# ip address 10.10.128.1 255.255.255.0
RouterA(config-if)# no shut

int s0/1 (this can be entered from the Router(config)# prompt or the
Router(config-if)# prompt
RouterA(config-if)# ip address 10.10.64.1 255.255.255.0
RouterA(config-if)# no shut

11. from the *RouterA#* prompt, enter *show ip interface brief* or *sh ip int brief*
RouterA# show ip interface brief
RouterA# show ip int brief

12. enter the following commands
ping 10.10.200.2
ping 10.10.100.2

note: The ping will not work if the RouterA interfaces have not been configured.

1. click on the RouterA button
2. Click on the A1 computer in LAN A. This opens the Internet Protocol (TCP/IP) Properties menu. Enter the IP address 10.10.20.250 in the default gateway field.
3. enter the following commands from the correct prompts

```
Router> enable
Router# conf t
Router# int fa0/0
Router(config-if)# ip address 10.10.20.250 255.255.255.0
Router(config-if)# no shut

Router> en
Router# conf t
Router# int fa0/1 or your can enter this command from the Router(config-if)#
prompt
Router(config-if)# ip address 10.10.200.1 255.255.255.0
Router(config-if)# no shut
```
4. Use the no shut command as shown in step 3
5. enter the following command (note the prompt)

```
Router# sh ip int brief
```
6. enter the following commands

```
Router(config)# ip route 10.10.10.0 255.255.255.0 10.10.200.2
Router(config)# ip route 10.10.10.0 255.255.255.0 10.10.100.2
```
7. enter the following command (note the prompt)

```
Router# sh ip route
```

The routes entered in step 6 should be displayed.
8. enter the following command

```
Router# sh run
```

The router information configured in this challenge should be displayed.

1. Press RETURN and then
Router> enable
2. enter the following command
Router# conf t
3. enter the following commands
Router(config)# int fa0/0
Router(config-if)# ip address 10.10.20.250 255.255.255.0
4. enter the following command
Router(config-if)# no shut
5. enter the following commands
Router(config)# int fa0/1
Router(config-if)# ip address 10.10.200.1 255.255.255.0
6. enter the following command
Router(config-if)# no shut
7. enter the following commands
Router(config)# int fa0/2
Router(config-if)# ip address 10.10.100.1 255.255.255.0
8. enter the following command
Router(config-if)# no shut
9. enter the following command from the Router(config)# prompt.
Router(config)# router rip
Router(config-router)#

Note the change in the prompt.

10. enter the following command
Router(config-router)# network 10.0.0.0
11. enter the following command
Router# sh ip int brief
The IP addresses for the interface should be configured
and the status should be up.

12. enter the following command

```
Router# sh ip protocol
```

The routing protocol should be RIP and the
Routing for Network: 10.0.0.0 should be displayed.

13. enter the following command

```
Router# sh ip route
```

14. enter the following command

```
Router# sh run
```

15. enter the following command

```
Router# copy run start
```

16. enter the following command

```
Router# sh start
```

1. click on the RouterA button
2. Press RETURN and then enter the following command
Router> enable
3. enter the following command
Router# conf t
4. enter the following command (note the change in the prompt)
Router(config)# hostname RouterA
RouterA(config)#
5. enter the following commands
Router(config)# int fa0/0
Router(config-if)# ip address 10.10.20.250 255.255.255.0
6. enter the following command
Router(config-if)# no shut
7. enter the following commands
Router(config)# int fa0/1
Router(config-if)# ip address 10.10.200.1 255.255.255.0
8. enter the following command
Router(config-if)# no shut
9. enter the following commands
Router(config)# int fa0/2
Router(config-if)# ip address 10.10.100.1 255.255.255.0
10. enter the following command
Router(config-if)# no shut
11. enter the following command from the Router(config)# prompt.
RouterA(config)# router igrp 200
12. enter the following command
Router(config-router)# network 10.0.0.0
13. enter the following command
Router# sh ip int brief

14. enter the following command

```
Router# sh ip protocol
```

The routing protocol should be IGRP and the
Routing for Network: 10.0.0.0 should be displayed.

15. enter the following command

```
Router# sh ip route
```

Two IGRP routes (I) should be displayed.

16. enter the following command

```
Router# sh run
```

17. enter the following command

```
Router# copy run start
```

18. enter the following command

```
Router# sh start
```

1. Press RETURN and then enter the following command
Router> enable
2. enter the following command
Router# conf t
3. enter the following command (note the change in the prompt)
Router(config)# hostname RouterA
RouterA(config)#
4. enter the following commands
Router(config)# int fa0/0
Router(config-if)# ip address 10.10.20.250 255.255.255.0
5. enter the following command
Router(config-if)# no shut
6. enter the following commands
Router(config)# int fa0/1
Router(config-if)# ip address 10.10.200.1 255.255.255.0
7. enter the following command
Router(config-if)# no shut
8. enter the following commands
Router(config)# int fa0/2
Router(config-if)# ip address 10.10.100.1 255.255.255.0
9. enter the following command
Router(config-if)# no shut
10. enter the following command from the Router(config)# prompt.
RouterA(config)# router ospf 100
11. enter the following command
RouterA(config-router)# network 10.0.0.0 0.255.255.255 area 100
12. enter the following command
Router# sh ip int brief
13. enter the following command
RouterA# sh ip protocol

14. enter the following command

```
RouterA# sh ip route
```

Three OSPF routes should be displayed.

15. enter the following command

```
RouterA# sh run
```

1. Press RETURN and then enter the following command
Router> enable
2. enter the following command
Router# conf t
3. enter the following command (note the change in the prompt)
Router(config)# hostname RouterA
RouterA(config)#
4. enter the following commands
Router(config)# int fa0/0
Router(config-if)# ip address 10.10.20.250 255.255.255.0
5. enter the following command
Router(config-if)# no shut
6. enter the following commands
Router(config)# int fa0/1
Router(config-if)# ip address 10.10.200.1 255.255.255.0
7. enter the following command
Router(config-if)# no shut
8. enter the following commands
Router(config)# int fa0/2
Router(config-if)# ip address 10.10.100.1 255.255.255.0
9. enter the following command
Router(config-if)# no shut
10. enter the following command from the Router(config)# prompt.
RouterA(config)# router eigrp 200
11. enter the following command
RouterA(config-router)# network 10.0.0.0
12. enter the following command
Router# sh ip int brief
13. enter the following command
RouterA# sh ip protocol

14. enter the following command
RouterA# sh ip route
EIGRP routes should be displayed.
15. enter the following commands
RouterA# sh run
16. enter the following commands
Border-Router# ping 10.10.5.250
Border-Router# ping 10.10.150.1
Border-Router# ping 10.10.200.2
Border-Router# ping 10.10.100.2