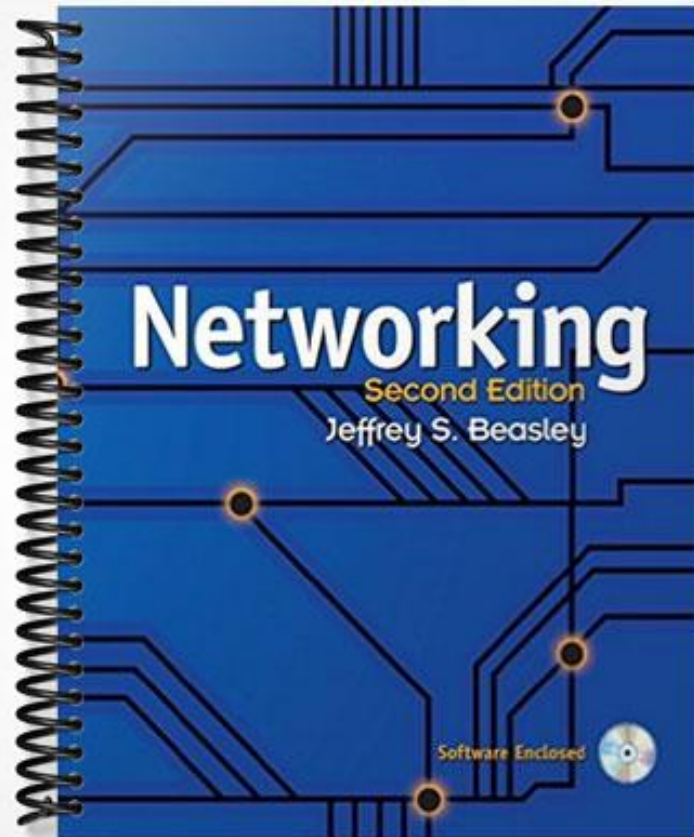# SOLUTIONS MANUAL

Networking
Second Edition
Jeffrey S. Beasley

Software Enclosed

Instructor's Manual
to accompany

NETWORKING

Jeffrey S. Beasley

Solutions to Net-Challenges
Laboratory Exercises

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10 9 8 7 6 5 4 3 2 1

CONTENTS

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

1. click on the RouterA button

2. Press enter to enter the user EXEC mode the 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

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