

NETW204 Lab Report

Instructions for completing NETW204 Lab Reports:

1. Make sure that you understand the objective of the lab(s) and the requirements for successfully performing them.
2. Follow all procedures in the Element K lab instructions (Sample Solutions).
3. After successfully completing the lab(s), capture a screenshot of your Transcript that shows both the labs completed and your name. Paste this into the bottom of your lab report. Your transcript can be found by going to the **Home/Account Information/Transcript** page. An example transcript is shown below.

The screenshot shows the Element K website interface. At the top, there is a navigation bar with links for Home, My Content, Catalog, Professional Development, and Help. Below this, a user greeting reads "Welcome, David Bruno of DeVry University" with a Logout link and the Element K logo. The main content area is titled "Account Information" and includes a sub-header "The Account Information section of the site allows you to verify and update your personal information, set your general preferences, view information on the courses you've accessed, and find detailed information on orders you've placed. Fields marked with an (*) are required." Below this, there are tabs for Personal Information, Preferences, Transcript, and Login History. The Transcript tab is active, showing a filter section with "Filter Transcript by:" and two dropdown menus set to "All Content" and "Completed", with a FILTER button. Below the filter is a table of vLabs:

vLabs	
Title	Date Completed
Acquiring and Duplicating Data	May 28, 2008
CALCULATING SUBNET MASKS	Mar 4, 2010

4. Submit the completed Lab Report to the appropriate weekly Dropbox.

Taking Screenshots

The instructions below provide basic guidance on taking screenshots of your labs

1. Complete the lab step that you would like to capture in a screenshot.
2. Click on the server's desktop that contains the window you want to capture.
3. Press the *Print Screen* key on your keyboard to copy it to your clipboard. On some keyboards, it is written as *Print Scrn* or *PrtSc*.
4. Click on your Lab Report (this document).
5. Scroll to the point in the Lab Report where you want the screenshot to appear.
6. Right click on your mouse and click paste, or press Ctrl + V
7. Once your screenshot appears in your Lab Report, click on your lab and continue to the next step.

Important Note: If you are using Windows 7 (any version), you can use the **Snipping Tool** to very easily create screenshots for your lab reports. If you've never used it, perform a search on (*how to use Snipping Tool*) for some quick tips and videos on its use.

NETW204 Lab Report

Create your lab report using this template starting on **page 2**. It is not necessary to include this page in your lab report.

NETW204 Lab Report

Name: Kevin O'Neal
Date: 6-10-2012
Professor: Hopkins

Lab Summary (20 points)

Write a short paragraph below (minimum 50 - 100 words) that summarizes what was accomplished in this week's lab(s), what you learned from performing it, and most importantly, how you feel it will benefit you in your career. (20 points)

In this lab, changed our addressing scheme from RIP to EIGRP. To do that, we first started by adding the new ip's for each interface and made the original interface a secondary address. Then we enabled eigrp. But, to do that we had to add a bandwidth command for the metric. We then verified our input by using the show ip protocols, show ip route commands and then pinging addresses within the network. To end the endeavor, we used the no ip address command to delete the original RIP addresses and we turned off RIP in the routing table by using the no router rip command. We finished up by verifying that everything was up and up, by once again using the show ip protocols, show ip route and ping commands. This exercise would be extremely helpful if I get myself in a change-over situation. Thus, the title of the lab, "RIP to EIGRP Migration."

Element K Transcript (10 points)

Copy and Paste your Element K *Transcript* that shows your **name** and **completion status** of your Lab(s). *Note: If your transcript has many items, it may be necessary to capture your name in a separate screenshot.*

Element K Transcript screenshot goes here. (10 points)

NETW204 Lab Report

The screenshot shows a Mozilla Firefox browser window with the address bar displaying `khse.vlab.elementk.com/vlab/deviceMaster.vlab?deviceId=2`. The page has four tabs: "Network Diagram", "Lab Content", "Device Controls", and "Thumbnails". The "Device Controls" tab is active, showing a terminal window for device R1. The terminal output is as follows:

```
R1
*****
* Your devices are in pod 4
*****
Passwords:
User - cisco
Enable - san-fran

User Access Verification

Password:
Router1>en
Password:
Router1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router1(config)#int loop0
Router1(config-if)#ip add 10.60.0.65 255.255.255.192
Router1(config-if)#ip add 172.16.1.1 255.255.255.0 second
Router1(config-if)#int s1/0
Router1(config-if)#ip add 10.60.0.5 255.255.255.252
Router1(config-if)#ip add 172.16.3.1 255.255.255.0 second
Router1(config-if)#clock rate 56000
Router1(config-if)#band 56
Router1(config-if)#int s1/1
Router1(config-if)#ip add 10.60.0.1 255.255.255.252
Router1(config-if)#ip add 172.16.2.1 255.255.255.0 second
Router1(config-if)#band 56
Router1(config-if)#router eigrp 100
Router1(config-router)#netw 10.0.0.0
Router1(config-router)#end
Router1#
*Jun 10 05:44:00.283: %SYS-5-CONFIG_I: Configured from console by console
Router1#
```

NETW204 Lab Report

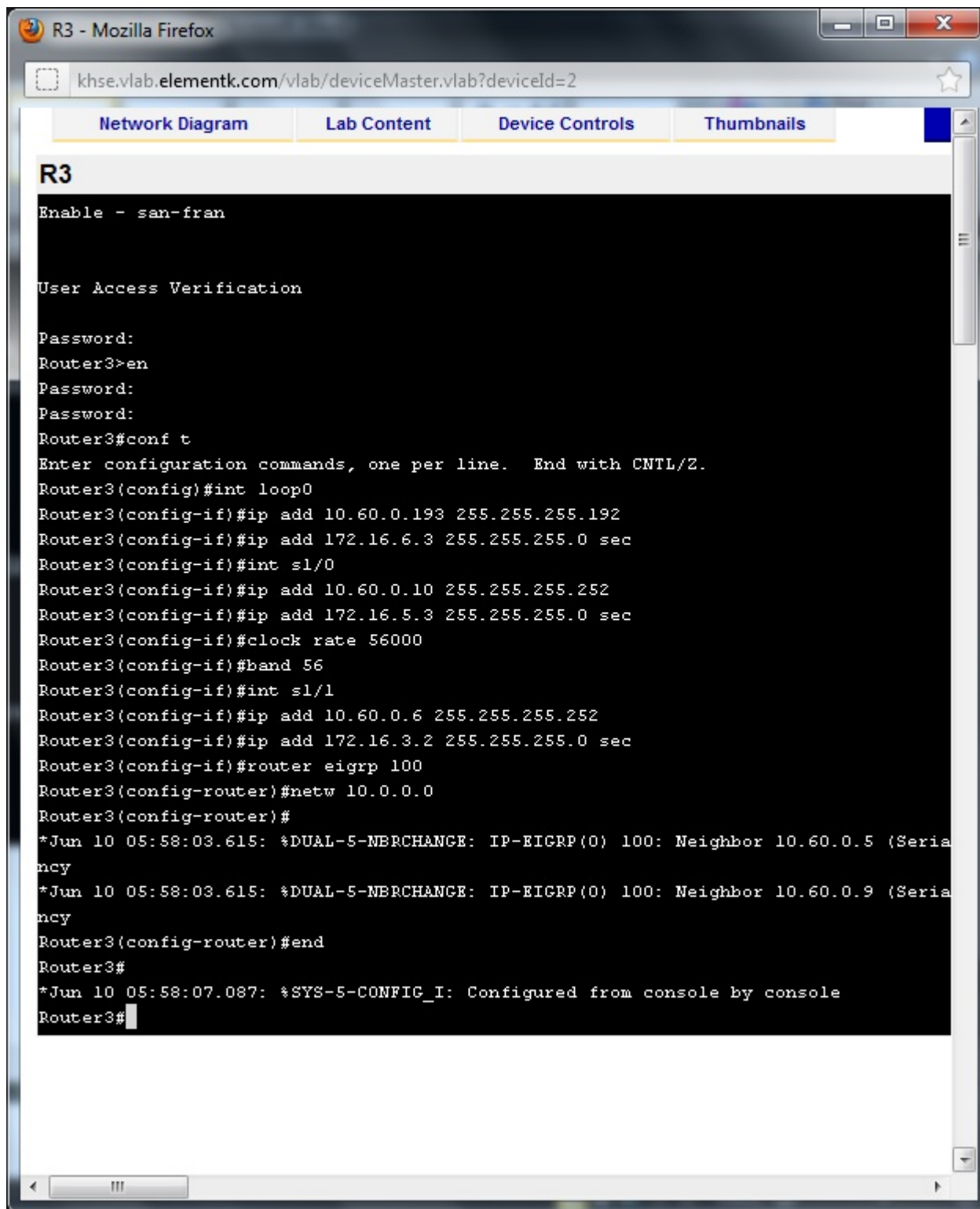


```
R2
-3
@AOK

[RCM PROXY: connecting to device...]
[RCM PROXY: connected]

Connected - Press ENTER for device prompt
Router2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router2(config)#int loop0
Router2(config-if)#ip add 10.60.0.129 255.255.255.192
Router2(config-if)#ip add 172.16.4.2 255.255.255.0 sec
Router2(config-if)#int s1/0
Router2(config-if)#ip add 10.60.0.2 255.255.255.252
Router2(config-if)#ip add 172.16.2.2 255.255.255.0 sec
Router2(config-if)#clock rate 56000
Router2(config-if)#band 56
Router2(config-if)#int s1/1
Router2(config-if)#ip add 10.60.0.9 255.255.255.252
Router2(config-if)#ip add 172.16.5.2 255.255.255.0 sec
Router2(config-if)#band 56
Router2(config-if)#router eigrp 100
Router2(config-router)#netw 10.0.0.0
Router2(config-router)#
*Jun 10 05:46:21.491: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 10.60.0.1 (Serial) is down
Router2(config-router)#end
Router2#
*Jun 10 05:46:25.263: %SYS-5-CONFIG_I: Configured from console by console
Router2#
```

NETW204 Lab Report



```
R3 - Mozilla Firefox
khse.vlab.elementk.com/vlab/deviceMaster.vlab?deviceId=2
Network Diagram Lab Content Device Controls Thumbnails
R3
Enable - san-fran
User Access Verification
Password:
Router3>en
Password:
Password:
Router3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router3(config)#int loop0
Router3(config-if)#ip add 10.60.0.193 255.255.255.192
Router3(config-if)#ip add 172.16.6.3 255.255.255.0 sec
Router3(config-if)#int s1/0
Router3(config-if)#ip add 10.60.0.10 255.255.255.252
Router3(config-if)#ip add 172.16.5.3 255.255.255.0 sec
Router3(config-if)#clock rate 56000
Router3(config-if)#band 56
Router3(config-if)#int s1/1
Router3(config-if)#ip add 10.60.0.6 255.255.255.252
Router3(config-if)#ip add 172.16.3.2 255.255.255.0 sec
Router3(config-if)#router eigrp 100
Router3(config-router)#netw 10.0.0.0
Router3(config-router)#
*Jun 10 05:58:03.615: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 10.60.0.5 (Serial) is up
*Jun 10 05:58:03.615: %DUAL-5-NBRCHANGE: IP-EIGRP(0) 100: Neighbor 10.60.0.9 (Serial) is up
Router3(config-router)#end
Router3#
*Jun 10 05:58:07.087: %SYS-5-CONFIG_I: Configured from console by console
Router3#
```

NETW204 Lab Report

R3

```
Helper address is not set
Directed broadcast forwarding is disabled
Secondary address 172.16.6.3/24
Multicast reserved groups joined: 224.0.0.9 224.0.0.10
Outgoing access list is not set
Inbound access list is not set
Proxy ARP is enabled
Local Proxy ARP is disabled
Security level is default
Split horizon is enabled
ICMP redirects are always sent
ICMP unreachable are always sent
ICMP mask replies are never sent
IP fast switching is enabled
IP fast switching on the same interface is disabled
IP Flow switching is disabled
IP CEF switching is enabled
IP CEF Fast switching turbo vector
IP multicast fast switching is enabled
IP multicast distributed fast switching is disabled
IP route-cache flags are Fast, CEF
Router Discovery is disabled
IP output packet accounting is disabled
IP access violation accounting is disabled
TCP/IP header compression is disabled
RTP/IP header compression is disabled
Policy routing is disabled
Network address translation is disabled
BGP Policy Mapping is disabled
WCCP Redirect outbound is disabled
WCCP Redirect inbound is disabled
WCCP Redirect exclude is disabled
Router3#
```

NETW204 Lab Report

R2 - Mozilla Firefox

khse.vlab.elementk.com/vlab/deviceMaster.vlab?deviceId=2

Network Diagram Lab Content Device Controls Thumbnails

R2

```
Helper address is not set
Directed broadcast forwarding is disabled
Secondary address 172.16.4.2/24
Multicast reserved groups joined: 224.0.0.9 224.0.0.10
Outgoing access list is not set
Inbound access list is not set
Proxy ARP is enabled
Local Proxy ARP is disabled
Security level is default
Split horizon is enabled
ICMP redirects are always sent
ICMP unreachable are always sent
ICMP mask replies are never sent
IP fast switching is enabled
IP fast switching on the same interface is disabled
IP Flow switching is disabled
IP CEF switching is enabled
IP CEF Fast switching turbo vector
IP multicast fast switching is enabled
IP multicast distributed fast switching is disabled
IP route-cache flags are Fast, CEF
Router Discovery is disabled
IP output packet accounting is disabled
IP access violation accounting is disabled
TCP/IP header compression is disabled
RTP/IP header compression is disabled
Policy routing is disabled
Network address translation is disabled
BGP Policy Mapping is disabled
WCCP Redirect outbound is disabled
WCCP Redirect inbound is disabled
WCCP Redirect exclude is disabled
Router2#
```

NETW204 Lab Report

R1

```
Helper address is not set
Directed broadcast forwarding is disabled
Secondary address 172.16.1.1/24
Multicast reserved groups joined: 224.0.0.9 224.0.0.10
Outgoing access list is not set
Inbound access list is not set
Proxy ARP is enabled
Local Proxy ARP is disabled
Security level is default
Split horizon is enabled
ICMP redirects are always sent
ICMP unreachable are always sent
ICMP mask replies are never sent
IP fast switching is enabled
IP fast switching on the same interface is disabled
IP Flow switching is disabled
IP CEF switching is enabled
IP CEF Fast switching turbo vector
IP multicast fast switching is enabled
IP multicast distributed fast switching is disabled
IP route-cache flags are Fast, CEF
Router Discovery is disabled
IP output packet accounting is disabled
IP access violation accounting is disabled
TCP/IP header compression is disabled
RTP/IP header compression is disabled
Policy routing is disabled
Network address translation is disabled
BGP Policy Mapping is disabled
WCCP Redirect outbound is disabled
WCCP Redirect inbound is disabled
WCCP Redirect exclude is disabled
Router1#
```

NETW204 Lab Report

R1 - Mozilla Firefox

khse.vlab.elementk.com/vlab/deviceMaster.vlab?deviceId=2

Network Diagram Lab Content Device Controls Thumbnails

R1

```
Codes: C - connected, S - static, 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
i - IS-IS, su - IS-IS summary, 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

172.16.0.0/24 is subnetted, 6 subnets
R    172.16.4.0 [120/1] via 172.16.2.2, 00:00:23, Serial1/1
R    172.16.5.0 [120/1] via 172.16.3.2, 00:00:11, Serial1/0
      [120/1] via 172.16.2.2, 00:00:23, Serial1/1
R    172.16.6.0 [120/1] via 172.16.3.2, 00:00:11, Serial1/0
C    172.16.1.0 is directly connected, Loopback0
C    172.16.2.0 is directly connected, Serial1/1
C    172.16.3.0 is directly connected, Serial1/0
10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C    10.60.0.4/30 is directly connected, Serial1/0
C    10.60.0.0/30 is directly connected, Serial1/1
D    10.60.0.8/30 [90/46738176] via 10.60.0.6, 00:07:23, Serial1/0
      [90/46738176] via 10.60.0.2, 00:07:23, Serial1/1
C    10.60.0.64/26 is directly connected, Loopback0
D    10.60.0.128/26 [90/46354176] via 10.60.0.2, 00:07:26, Serial1/1
D    10.60.0.192/26 [90/46354176] via 10.60.0.6, 00:07:26, Serial1/0
Router1#ping 10.60.0.129

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.60.0.129, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/33/36 ms
Router1#
```

NETW204 Lab Report

NETW204 Lab Report

R3 - Mozilla Firefox

khse.vlab.elementk.com/vlab/deviceMaster.vlab?deviceId=2

Network Diagram Lab Content Device Controls Thumbnails

R3

```
Codes: C - connected, S - static, 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
i - IS-IS, su - IS-IS summary, 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

172.16.0.0/24 is subnetted, 6 subnets
R    172.16.4.0 [120/1] via 172.16.5.2, 00:00:25, Serial1/0
C    172.16.5.0 is directly connected, Serial1/0
C    172.16.6.0 is directly connected, Loopback0
R    172.16.1.0 [120/1] via 172.16.3.1, 00:00:21, Serial1/1
R    172.16.2.0 [120/1] via 172.16.5.2, 00:00:25, Serial1/0
      [120/1] via 172.16.3.1, 00:00:21, Serial1/1
C    172.16.3.0 is directly connected, Serial1/1
10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C    10.60.0.4/30 is directly connected, Serial1/1
D    10.60.0.0/30 [90/46738176] via 10.60.0.9, 00:11:56, Serial1/0
      [90/46738176] via 10.60.0.5, 00:11:56, Serial1/1
C    10.60.0.8/30 is directly connected, Serial1/0
D    10.60.0.64/26 [90/20640000] via 10.60.0.5, 00:11:59, Serial1/1
D    10.60.0.128/26 [90/46354176] via 10.60.0.9, 00:11:59, Serial1/0
C    10.60.0.192/26 is directly connected, Loopback0
Router3#ping 172.16.1.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.16.1.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/32/32 ms
Router3#
```

NETW204 Lab Report



R1 - Mozilla Firefox

khse.vlab.elementk.com/vlab/deviceMaster.vlab?deviceId=2

Network Diagram Lab Content Device Controls Thumbnails

R1

```
10.0.0.0
Routing Information Sources:
  Gateway         Distance      Last Update
  10.60.0.6        90           00:06:04
  10.60.0.2        90           00:06:04
Distance: internal 90 external 170

Router1#sh ip route
Codes: C - connected, S - static, 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
       i - IS-IS, su - IS-IS summary, 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

 10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C       10.60.0.4/30 is directly connected, Serial1/0
C       10.60.0.0/30 is directly connected, Serial1/1
D       10.60.0.8/30 [90/46738176] via 10.60.0.6, 00:06:18, Serial1/0
         [90/46738176] via 10.60.0.2, 00:06:18, Serial1/1
C       10.60.0.64/26 is directly connected, Loopback0
D       10.60.0.128/26 [90/46354176] via 10.60.0.2, 00:06:18, Serial1/1
D       10.60.0.192/26 [90/46354176] via 10.60.0.6, 00:06:18, Serial1/0
Router1#ping 10.60.0.129

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.60.0.129, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/32/36 ms
Router1#
```

NETW204 Lab Report

R2 - Mozilla Firefox

khse.vlab.elementk.com/vlab/deviceMaster.vlab?deviceId=2

Network Diagram Lab Content Device Controls Thumbnails

R2

```
10.0.0.0
Routing Information Sources:
  Gateway         Distance      Last Update
  10.60.0.1        90            00:04:38
  10.60.0.10       90            00:04:38
Distance: internal 90 external 170

Router2#sh ip route
Codes: C - connected, S - static, 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
       i - IS-IS, su - IS-IS summary, 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

10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
D    10.60.0.4/30 [90/46738176] via 10.60.0.10, 00:04:48, Serial1/1
     [90/46738176] via 10.60.0.1, 00:04:48, Serial1/0
C    10.60.0.0/30 is directly connected, Serial1/0
C    10.60.0.8/30 is directly connected, Serial1/1
D    10.60.0.64/26 [90/46354176] via 10.60.0.1, 00:04:48, Serial1/0
C    10.60.0.128/26 is directly connected, Loopback0
D    10.60.0.192/26 [90/46354176] via 10.60.0.10, 00:04:48, Serial1/1
Router2#ping 10.60.0.6

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.60.0.6, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 48/49/52 ms
Router2#
```

NETW204 Lab Report



R3 - Mozilla Firefox

khse.vlab.elementk.com/vlab/deviceMaster.vlab?deviceId=2

Network Diagram Lab Content Device Controls Thumbnails

R3

```
Router3#sh ip route
Codes: C - connected, S - static, 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
       i - IS-IS, su - IS-IS summary, 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

 10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C       10.60.0.4/30 is directly connected, Serial1/1
D       10.60.0.0/30 [90/46738176] via 10.60.0.9, 00:03:09, Serial1/0
         [90/46738176] via 10.60.0.5, 00:03:09, Serial1/1
C       10.60.0.8/30 is directly connected, Serial1/0
D       10.60.0.64/26 [90/20640000] via 10.60.0.5, 00:03:09, Serial1/1
D       10.60.0.128/26 [90/46354176] via 10.60.0.9, 00:03:09, Serial1/0
C       10.60.0.192/26 is directly connected, Loopback0
Router3#ping 10.60.0.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.60.0.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/33/36 ms
Router3#ping 10.60.0.65

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.60.0.65, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/33/36 ms
Router3#
```

NETW204 Lab Report

Introduction to Routing with Lab x Account Information x +

elementk.com https://knowledge.elementk.com/accountinformation/StudentTranscript.jsp?navSelected=transcript

Home My Content Catalog Professional Development Help

Home > Account Information > Transcript

Welcome, Kevin O'Neal of DeVry University [Logout](#)

Account Information

The Account Information section of the site allows you to verify and update your personal information, set your general preferences, view information on the courses you've accessed, and find detailed information on orders you've placed. Fields marked with an (*) are required.

Personal Information Preferences Transcript Login History

Filter Transcripts by: Completed

vLabs	
Title	Date Completed
A Simple Network Using RIP Protocol	May 20, 2012
CALCULATING SUBNET MASKS	Mar 24, 2012
CLASSIFYING NETWORK ADDRESSING	Mar 10, 2012
COMPUTING USABLE SUBNETS AND HOSTS	Mar 18, 2012
Configuring RIPv1 and RIPv2 on the same network	May 27, 2012
CONNECTING TO THE INTERNET AND MAIN OFFICE: Static and Dynamic Routes	May 13, 2012
CONVERTING DECIMAL TO BINARY AND BINARY TO DECIMAL	Mar 10, 2012 Mar 10, 2012
ENHANCING THE SECURITY OF INITIAL ROUTER CONFIGURATION	Apr 8, 2012
ENHANCING THE SECURITY OF INITIAL SWITCH CONFIGURATION: SSH & Port Security	Apr 1, 2012
Floating Static Routes for Network Redundancy	May 20, 2012
IP Subnetting Lab	Mar 25, 2012
PERFORMING INITIAL ROUTER STARTUP	Apr 8, 2012
PERFORMING SWITCH STARTUP AND INITIAL CONFIGURATION	Apr 1, 2012
RIP to EIGRP Migration	Jun 10, 2012

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