Exam Report: 12.4.4 Practice Questions

Date: 4/28/2020 11:01:08 am
Time Spent: 0:45

Candidate: Garsteck, Matthew
Login: mGarsteck

Overall Performance

Your Score: 43%

Passing Score: 80%

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Individual Responses

Question 1: Correct

Which routing component is used to forward packets to remote networks?

- Default gateway
- IP address
- Host name
- Subnet mask

Explanation

The default gateway identifies the router to which packets for remote networks are sent.

The subnet mask identifies which portion of the IP address is the network address. The IP address identifies both the logical host and logical network addresses. The host name identifies the logical name of the local system.

References

Linux Pro - 12.4 Routing Configuration
[e_route_lp5.exam.xml Q_IP_ROUTE_LP5_01]

Question 2: Correct

You have replaced the default gateway on your network. The gateway had used the IP address of 201.12.3.4, and you must remove it from the routing table.

Which command would you use to accomplish this task?

- **route remove 201.12.3.4**
- **route del default gw 201.12.3.4**
- **del route gw 201.12.3.4**
- **remove route 201.12.3.4**

Explanation

Use the **route** utility to add and remove entries. Use the **del** parameter to remove a route. The syntax for removing a default gateway with the IP address given is **route del default gw 201.12.3.4**.

References

Linux Pro - 12.4 Routing Configuration
[e_route_lp5.exam.xml Q_IP_ROUTE_LP5_02]

Question 3: Incorrect

After the acquisition of another company, you are in a position where you must add another network to the existing routing tables.

Which of the following commands would you use to accomplish this task? (Select TWO. Each option is a complete solution.)

- ~~ip route add -net 11.12.13.14/24 via 201.12.3.4~~
- **ip route add 11.12.13.14/24 via 201.12.3.4**
- ~~route add -host 11.12.13.14 gw 201.12.3.4~~
- **route -p add 11.12.13.14 201.12.3.4**
- **route add -net 11.12.13.14/24 gw 201.12.3.4**
- **add route 11.12.13.14/24 gw 201.12.3.4**
- **ip route 11.12.13.14/24 201.12.3.4**

Explanation

The first option is to use the **route add** command to add a route to the routing table. To add an entire network (versus just a host), use the **-net** option followed by the network address and gateway using **route add -net 11.12.13.14/24 gw 201.12.3.4**.

The second option is to use the **ip route add** command to a route to the routing table. First, indicate the network address. Then use **via** to indicate the IP address of the router to which packets addressed to the remote route should be sent as follows: **ip route add 11.12.13.14/24 via 201.12.3.4**

References

Linux Pro - 12.4 Routing Configuration
[e_route_lp5.exam.xml Q_IP_ROUTE_LP5_03]

Question 4: Incorrect

As a system administrator, you need to add a static route so that you can reach host 195.156.76.122, 255.255.255.0 and the device eno32 to find the target network.

Which commands will accomplish this task? (Select TWO. Each option is a complete solution).

- **ip route add 195.156.76.0/16 dev eno32**
- ~~ip route add 195.156.76.0 netmask 255.255.255.0 dev eno32~~
- **route add -net 195.156.76.0 netmask 255.255.255.0 dev eno32**
- ~~route add 195.156.76.122 netmask 255.255.255.0~~
- **ip route add 195.156.76.0/24 dev eno32**
- **route 195.156.76.0 netmask 255.255.255.0 dev eno32**
- **route insert 195.156.76.0 netmask 255.255.255.0 dev eno32**

Explanation

One correct answer is **route add -net 195.156.76.0 netmask 255.255.255.0 dev eth0**. The **route add -net** indicates that you are adding a route and the target is a network. **195.156.76.0 netmask 255.255.255.0** indicates that you are routing network 195.156.76.0 with a subnet mask of 255.255.255.0, which indicates the first three octets are the network address. Remember, you route networks, not hosts. **dev eno32** indicates that the eno32 device is being used to find the target network.

The other correct answer is **ip route add 195.156.76.0/24 dev eno32**. **ip route add 195.156.76.0/24** indicates that you are adding the **195.156.76.0/24** network with the 24-bit subnet mask (which is the

same as the 255.255.255.0 subnet mask, but you must use CIDR notation with the **ip** command and any of its options). **dev eno32** indicates that the eno32 device is being used to find the target network.

References

Linux Pro - 12.4 Routing Configuration
[e_route_lp5.exam.xml Q_IP_ROUTE_LP5_04]

Question 5: Incorrect

As a system administrator, you are going to add a static route for host 195.157.66.221, 255.255.255.0. Your default gateway is 192.168.5.1, but you want this route to use gateway 192.168.7.1.

Which commands will accomplish this task? (Select TWO. Each option is a complete solution.)

- [ ] **route add -net 195.157.66.0 netmask 255.255.255.0**
- [x] ~~**ip route add 195.157.66.0/8 via 192.168.7.1**~~
- [ ] **ip route add 195.157.66.0 netmask 255.255.255.0 via 192.168.7.1**
- [x] ~~**route add -net 195.157.66.0 netmask 255.255.255.0 gw 192.168.5.1**~~
- [ ] **ip route add 195.157.66.0/24 via 192.168.7.1**
- [ ] **route 195.157.66.0 netmask 255.255.255.0 gw 192.168.7.1**
- [ ] **route add -net 195.157.66.0 netmask 255.255.255.0 gw 192.168.7.1**

Explanation

One option is to use **route add -net 195.157.66.0 netmask 255.255.255.0 gw 192.168.7.1**. **route add -net** indicates that you are adding a route and the target is a network. **195.156.66.0 netmask 255.255.255.0** indicates that you are routing network **195.156.66.0** with a subnet mask of **255.255.255.0**, which indicates that the first three octets are the network address. **gw 192.168.7.1** indicates that you are using the gateway (gw) 192.168.7.1 to find the target network.

The second option is to use **ip route add 195.157.66.0/24 via 192.168.7.1**. **ip route add 195.157.66.0/24** indicates that you are adding the **195.156.76.0/24** network with the 24-bit subnet mask (which is the same as the 255.255.255.0 subnet mask, but you must use CIDR notation with the **ip** command and any of its options) to the route table. Including **via 192.168.7.1** indicates that you are using 192.168.7.1 to find the target network.

References

Linux Pro - 12.4 Routing Configuration
[e_route_lp5.exam.xml Q_IP_ROUTE_LP5_05]

Question 6: Incorrect

As a system administrator, you want to block (reject) any packets from 170.122.0.0, 255.255.0.0.

Which command will block those packets?

- ( ) **route add 170.122.0.0 netmask 255.255.0.0 reject**
- ( ) **route block 170.122.0.0 netmask 255.255.0.0**
- ( ) **route add 170.122.0.0 netmask 255.255.0.0 block**
- (•) ~~**route add block 170.122.0.0 netmask 255.255.0.0**~~

Explanation

route add indicates that you are adding a route. **170.122.0.0 netmask 255.255.0.0** indicates the network and subnet mask that is being added. **reject** is the option used to reject any packets from hosts on this network.

References

Linux Pro - 12.4 Routing Configuration
[e_route_lp5.exam.xml Q_IP_ROUTE_LP5_06]

Question 7: Correct

Which of the following utilities would you use to view the routing table? (Select TWO. Each option is a complete solution.)

- [ ] **mtr**
- [ ] **traceroute**
- [x] **ip route show**
- [ ] **tracert**
- [x] **route**
- [ ] **dig**

Explanation

Use the **route** or **ip route show** commands to display the contents of the routing table.

traceroute or **tracert** uses ICMP packets to test connectivity between devices and shows the path between the two devices. Responses from each hop on the route are measured three times to provide an accurate representation of how long the packet takes to reach and be returned by that host. The **mtr** command on Linux is a combination of the **ping** and **traceroute** commands.

The **dig** command resolves (looks up) the IP address of a host name.

References

Linux Pro - 12.4 Routing Configuration
[e_route_lp5.exam.xml Q_IP_ROUTE_LP5_07]