Exam Report: 6.15.4 Practice Questions

Date: 1/22/2020 1:14:40 pm
Time Spent: 2:03

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Overall Performance

Your Score: 40%

Passing Score: 80%

View results by: Objective Analysis Individual Responses

Individual Responses

Question 1: Incorrect

Drag the software-defined networking (SDN) layer on the left to the appropriate function on the right. (Each SDN layer may be used once, more than once, or not at all.)

This layer receives its requests from the application layer.

Control layer

This layer is also known as the infrastructure layer.

Physical layer

This layer communicates with the control layer through what's called the northbound interface.

Application layer

This layer provides the physical layer with configuration and instructions.

Control layer

On this layer, individual networking devices use southbound APIs to communicate with the control plane.

Physical layer

Explanation

The SDN architecture consists of three layers:

- Application layer: Communicates with the control layer through the northbound interface. These are sometimes called northbound APIs.
- Control layer: Receives its requests from the application layer and then provides the physical layer with its configuration and instructions.
- Physical layer: Communicates to the control layer through the. southbound interface. The individual networking devices use southbound APIs to communicate with the control plane and vice versa. Even though this is called the physical layer, it is where both physical and virtual network devices sit. (Also known as the infrastructure layer.)

References

LabSim for Security Pro, Section 6.15.
[All Questions SecPro2017_v6.exm NET_DESIGN_02]

Question 2: Correct

Network engineers have the option of using software to configure and intelligently control the network rather than relying on the individual static configuration files that are located on each network device.

Which of the following is a relatively new technology that allows network and security professionals to use software to manage, control, and make changes to a network?

- Infrastructure software networking

- Software-defined networking
- Control layer networking
- Load balancing software

Explanation

Software-defined networking (SDN) is a relatively new technology that allows network and security professionals to manage, control, and make changes to a network. Network engineers are able to use software to configure and intelligently control the network rather than relying on the individual static configuration files that are located on each network device.

The control layer is one of the three layers that comprises software-defined networking. The other layers are the application layer and the physical layer. Load balancers can be a component of the application layer. The physical layer can also be referred to as the infrastructure layer.

References

LabSim for Security Pro, Section 6.15.
[All Questions SecPro2017_v6.exm NET_DESIGN_01]

Question 3: Incorrect

You have opted to use software-defined networking (SDN) to manage, control, and make changes to your network. You want to be able to use software to configure and intelligently control the network, rather than relying on the individual static configuration files that are located on each network device.

SDN consists of three layers:

- Application layer
- Control layer
- Physical layer

Which of the following describes what the SDN control layer does to networking devices that comprise the physical layer?

- The control layer interfaces with the control plane in each networking device and creates a virtual control plane.
- ~~The control layer uses southbound APIs to communicate with the control plane in each networking device and creates a single control plane.~~
- The control layer removes the control plane from networking devices and creates a single control plane.
- The control layer removes the control plane from networking devices and creates a virtual control plane for each device.

Explanation

The control layer removes the control plane from the physical networking devices. In traditional networks, each of these devices would have an integrated control plane located on the device. However, SDN removes this from the devices and creates a single control plane. The individual networking devices use southbound APIs to communicate with the control plane and vice versa.

References

LabSim for Security Pro, Section 6.15.
[All Questions SecPro2017_v6.exm NET_DESIGN_05]

Question 4: Incorrect

Software-defined networking (SDN) uses a controller to manage the devices. The controller is able to inventory hardware components in the network, gather network statistics, make routing decisions based on gathered data, and facilitate communication between devices from different vendors. It can also be used to make wide-spread configuration changes on just one device.

Which of the following best describes an SDN controller?

~~The SDN controller is a networking protocol.~~

The SDN controller is software.

The SDN controller is a virtual networking device.

The SDN controller is hardware.

Explanation

SDN uses a controller to manage the devices. The controller is software that is able to inventory hardware components in the network, gather network statistics, make routing decisions based on gathered data, and facilitate communication between devices from different vendors. It can also be used to make wide-spread configuration changes on just one device.

References

LabSim for Security Pro, Section 6.15.
[All Questions SecPro2017_v6.exm NET_DESIGN_03]

Question 5: Correct

Which of the following is a disadvantage of software-defined networking (SDN)?

SDN creates centralized management.

SDN facilitates communication between hardware from different vendors.

SDN gathers network information and statistics.

SDN standards are still being developed.

Explanation

Some of the disadvantages of SDN include:

- Still a newer technology
- Lack of vendor support
- Standards are still being developed
- Centralized control opens a new target for security threats

Some of the advantages of SDN include:

- Centralized management
- More granular control
- Lower overall cost and labor
- Give new life to old networking hardware
- Gather network information and statistics
- Facilitate communication between hardware from different vendors

References

LabSim for Security Pro, Section 6.15.
[All Questions SecPro2017_v6.exm NET_DESIGN_04]