

N10-009 Dumps

CompTIA Network+ Exam

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NEW QUESTION 1

- (Topic 3)

A network technician is attempting to harden a commercial switch that was recently purchased. Which of the following hardening techniques best mitigates the use of publicly available information?

- A. Changing the default password
- B. Blocking inbound SSH connections
- C. Removing the gateway from the network configuration
- D. Restricting physical access to the switch

Answer: A

Explanation:

Changing the default password is a hardening technique that best mitigates the use of publicly available information, such as vendor documentation, online forums, or hacking tools, that may reveal the default credentials of a commercial switch. By changing the default password to a strong and unique one, the network technician can prevent unauthorized access to the switch configuration and management. References:

? Network Hardening - N10-008 CompTIA Network+ : 4.3 - YouTube1

? CompTIA Network+ Certification Exam Objectives, page 151

NEW QUESTION 2

- (Topic 3)

Which of the following is the MOST appropriate use case for the deployment of a clientless VPN?

- A. Secure web access to internal corporate resources.
- B. Upgrade security via the use of an NFV technology
- C. Connect two data centers across the internet.
- D. Increase VPN availability by using a SDWAN technology.

Answer: A

NEW QUESTION 3

- (Topic 3)

Which of the following protocols can be routed?

- A. FCoE
- B. Fibre Channel
- C. iSCSI
- D. NetBEUI

Answer: C

Explanation:

iSCSI (Internet Small Computer System Interface) is a protocol that allows SCSI commands to be transported over IP networks1. iSCSI can be routed because it contains a network address and a device address, as required by a routable protocol2. iSCSI can be used to access block-level storage devices over a network, such as SAN (Storage Area Network).

FCoE (Fibre Channel over Ethernet) is a protocol that allows Fibre Channel frames to be encapsulated and transported over Ethernet networks1. FCoE cannot be routed because it does not contain a network address, only a device address. FCoE operates at the data link layer and requires special switches and adapters to support it. FCoE can also be used to access block-level storage devices over a network, such as SAN.

Fibre Channel is a protocol that provides high-speed and low-latency communication between servers and storage devices1. Fibre Channel cannot be routed because it does not use IP networks, but rather its own dedicated network infrastructure. Fibre Channel operates at the physical layer and the data link layer and requires special cables, switches, and adapters to support it. Fibre Channel can also be used to access block-level storage devices over a network, such as SAN.

NetBEUI (NetBIOS Extended User Interface) is an old protocol that provides session-level communication between devices on a local network1. NetBEUI cannot be routed because it does not contain a network address, only a device address. NetBEUI operates at the transport layer and relies on NetBIOS for name resolution. NetBEUI is obsolete and has been replaced by other protocols, such as TCP/IP.

NEW QUESTION 4

- (Topic 3)

A technician is trying to install a VoIP phone, but the phone is not turning on. The technician checks the cable going from the phone to the switch, and the cable is good. Which of the following actions IS needed for this phone to work?

- A. Add a POE injector
- B. Enable MDIX.
- C. Use a crossover cable.
- D. Reconfigure the port.

Answer: A

NEW QUESTION 5

- (Topic 3)

A company streams video to multiple devices across a campus. When this happens, several users report a degradation of network performance. Which of the following would MOST likely address this issue?

- A. Enable IGMP snooping on the switches.
- B. Implement another DHCP server.
- C. Reconfigure port tagging for the video traffic.
- D. Change the SSID of the APs

Answer: A

NEW QUESTION 6

- (Topic 3)

A network technician is investigating a trouble ticket for a user who does not have network connectivity. All patch cables between the wall jacks and computers in the building were upgraded over the weekend from Cat 5 to Cat 6. The newly installed cable is crimped with a TIA/EIA 568A on one end and a TIA/EIA 568B on the other end.

Which of the following should the technician do to MOST likely fix the issue?

- A. Ensure the switchport has PoE enabled.
- B. Crimp the cable as a straight-through cable.
- C. Ensure the switchport has STP enabled.
- D. Crimp the cable as a rollover cable.

Answer: B

Explanation:

A straight-through cable is a type of twisted pair cable that has the same wiring standard (TIA/EIA 568A or 568B) on both ends. This is the most common type of cable used for connecting devices of different types, such as a computer and a switch. A cable that has different wiring standards on each end (TIA/EIA 568A on one end and 568B on the other) is called a crossover cable, which is used for connecting devices of the same type, such as two computers or two switches. Therefore, the technician should crimp the cable as a straight-through cable to fix the issue.

NEW QUESTION 7

- (Topic 3)

A technician is expanding a wireless network and adding new access points. The company requires that each access point broadcast the same SSID. Which of the following should the technician implement for this requirement?

- A. MIMO
- B. Roaming
- C. Channel bonding
- D. Extended service set

Answer: D

Explanation:

An extended service set (ESS) is a wireless network that consists of two or more access points (APs) that share the same SSID and are connected by a distribution system, such as a switch or a router. An ESS allows wireless clients to roam seamlessly between different APs without losing connectivity or changing network settings. An ESS can also increase the coverage area and capacity of a wireless network.

NEW QUESTION 8

- (Topic 3)

A company receives a cease-and-desist order from its ISP regarding prohibited torrent activity. Which of the following should be implemented to comply with the cease-and-desist order?

- A. MAC security
- B. Content filtering
- C. Screened subnet
- D. Perimeter network

Answer: B

Explanation:

Content filtering is a technique that blocks or allows access to certain types of web content, based on predefined criteria or policies. Content filtering can be used to comply with the cease-and-desist order by preventing users from accessing torrent sites or downloading torrent files, which are often used for illegal file sharing or piracy. Content filtering can also protect the network from malware, phishing, or inappropriate content. References: CompTIA Network+ N10-008 Cert Guide - O'Reilly Media, Chapter 14: Securing a Basic Network, page 520

NEW QUESTION 9

- (Topic 3)

Users in a branch can access an In-house database server, but it is taking too long to fetch records. The analyst does not know whether the issue is being caused by network latency. Which of the following will the analyst MOST likely use to retrieve the metrics that are needed to resolve this issue?

- A. SNMP
- B. Link state
- C. Syslog
- D. QoS
- E. Traffic shaping

Answer: A

NEW QUESTION 10

- (Topic 3)

Which of the following is a valid and cost-effective solution to connect a fiber cable into a network switch without available SFP ports?

- A. Use a media converter and a UTP cable
- B. Install an additional transceiver module and use GBICs
- C. Change the type of connector from SC to F-type
- D. Use a loopback adapter to make the connection

Answer: A

NEW QUESTION 10

- (Topic 3)

Users are reporting performance issues when attempting to access the main fileshare server. Which of the following steps should a network administrator perform next based on the network troubleshooting methodology?

- A. Implement a fix to resolve the connectivity issues.
- B. Determine if anything has changed.
- C. Establish a theory of probable cause.
- D. Document all findings, actions, and lessons learned.

Answer: B

Explanation:

According to the network troubleshooting methodology, the first step is to identify the problem and gather information about the current state of the network using the network troubleshooting tools that are available¹. The next step is to determine if anything has changed in the network configuration, environment, or usage that could have caused or contributed to the performance issues¹. This step helps to narrow down the possible causes and eliminate irrelevant factors. For example, the network administrator could check if there were any recent updates, patches, or modifications to the fileshare server or the network devices that connect to it. They could also check if there was an increase in network traffic or demand for the fileshare server resources².

The other options are not correct because they are not the next steps in the network troubleshooting methodology. Implementing a fix to resolve the connectivity issues (A) is premature without determining the root cause of the problem. Establishing a theory of probable cause © is a later step that requires testing and verification. Documenting all findings, actions, and lessons learned (D) is the final step that should be done after resolving the problem and restoring normal network operations¹.

NEW QUESTION 15

- (Topic 3)

Which of the following BEST describes a north-south traffic flow?

- A. A public internet user accessing a published web server
- B. A database server communicating with another clustered database server
- C. A Layer 3 switch advertising routes to a router
- D. A management application connecting to managed devices

Answer: A

Explanation:

A north-south traffic flow is a term used to describe the communication between a user or device outside the network and a server or service inside the network. For example, a public internet user accessing a published web server is a north-south traffic flow. This type of traffic flow typically crosses the network perimeter and requires security measures such as firewalls and VPNs. References: CompTIA Network+ N10-008 Certification Study Guide, page 16; The Official CompTIA Network+ Student Guide (Exam N10-008), page 1- 9.

North-south traffic flow refers to the flow of traffic between the internal network of an organization and the external world. This type of traffic typically flows from the internet to the organization's internal network, and back again.

Examples of north-south traffic flow include:

- ? A public internet user accessing a published web server
- ? A remote employee connecting to a VPN
- ? An email client sending email to an external server
- ? A customer connecting to an e-commerce website

References:

- ? CompTIA Network+ N10-008 Exam Objectives, Version 5.0, August 2022, page 12
- ? CompTIA Network+ Certification Study Guide, Seventh Edition, Todd Lammle, Sybex, 2022, page 17

NEW QUESTION 17

- (Topic 3)

A network technician wants to find the shortest path from one node to every other node in the network. Which of the following algorithms will provide the FASTEST convergence time?

- A. A static algorithm
- B. A link-state algorithm
- C. A distance-vector algorithm
- D. A path-vector algorithm

Answer: B

Explanation:

A link-state algorithm is a routing algorithm that uses information about the state of each link in the network to calculate the shortest path from one node to every other node. A link-state algorithm requires each router to maintain a complete map of the network topology and exchange link-state advertisements with its neighbors periodically or when a change occurs. A link-state algorithm uses a mathematical formula called Dijkstra's algorithm to find the shortest path based on the link costs. A link-state algorithm provides the fastest convergence time because it can quickly detect and adapt to network changes. References: [CompTIA Network+ Certification Exam Objectives], [Link-state routing protocol - Wikipedia]

NEW QUESTION 18

- (Topic 3)

Users are reporting poor wireless performance in some areas of an industrial plant The wireless controller is measuring a low EIRP value compared to the recommendations noted on the most recent site survey. Which of the following should be verified or replaced for the EIRP value to meet the site survey's specifications? (Select TWO).

- A. AP transmit power
- B. Channel utilization

- C. Signal loss
- D. Update ARP tables
- E. Antenna gain
- F. AP association time

Answer: AE

Explanation:

? AP transmit power: You should check if your APs have sufficient power output and adjust them if needed. You should also make sure they are not exceeding regulatory limits for your region.

? Antenna gain: You should check if your antennas have adequate gain for your coverage area and replace them if needed. You should also make sure they are aligned properly and not obstructed by any objects.

In the scenario described, the wireless controller is measuring a low EIRP value compared to the recommendations noted in the most recent site survey. EIRP is the combination of the power transmitted by the access point and the antenna gain. Therefore, to increase the EIRP value to meet the site survey's specifications, the administrator should verify or replace the AP transmit power (option A) and the antenna gain (option E). This can be achieved by adjusting the transmit power settings on the AP or by replacing the AP's antenna with one that has a higher gain

NEW QUESTION 21

- (Topic 3)

A network administrator is adding a new switch to the network. Which of the following network hardening techniques would be BEST to use once the switch is in production?

- A. Disable unneeded ports
- B. Disable SSH service
- C. Disable MAC filtering
- D. Disable port security

Answer: A

NEW QUESTION 26

- (Topic 3)

A network technician wants to deploy a new wireless access point to reduce user latency. Currently, the organization has the following deployed: Which of the following channels should the new device broadcast on?

- A. Channel 3
- B. Channel 9
- C. Channel 10
- D. Channel 11

Answer: D

Explanation:

The best channel for a new wireless access point is one that does not overlap with the existing channels used by other devices. Overlapping channels can cause interference and degrade the performance of the wireless network. According to the web search results, the 2.4 GHz band has 11 channels in the U.S., but only channels 1, 6, and 11 are non-overlapping. Since the existing devices are using channels 1 and 6, the new device should use channel 11 to avoid adjacent-channel interference¹²

References¹: Why Channels 1, 6 and 11? | MetaGeek ²: How to Choose the Best Wi-Fi Channels for Your Network - Lifewire

NEW QUESTION 27

- (Topic 3)

A company has multiple offices around the world. The computer rooms in some office locations are too warm. Dedicated sensors are in each room, but the process of checking each sensor takes a long time. Which of the following options can the company put in place to automate temperature readings with internal resources?

- A. Implement NetFlow.
- B. Hire a programmer to write a script to perform the checks
- C. Utilize ping to measure the response.
- D. Use SNMP with an existing collector server

Answer: D

Explanation:

SNMP (Simple Network Management Protocol) is a protocol that allows network devices to communicate with a management server. By using SNMP, the company can set up an SNMP agent on each sensor, which will report its temperature readings to an existing collector server. This will enable the company to monitor the temperatures of all their sensors in real-time without the need for manual checks. Additionally, SNMP's scalability means that even if the company adds more rooms or sensors, the existing system can be easily expanded to accommodate them.

NEW QUESTION 31

- (Topic 3)

A company is opening a new building on the other side of its campus. The distance from the closest building to the new building is 1,804ft (550m). The company needs to connect the networking equipment in the new building to the Other buildings on the campus without using a repeater. Which Of the following transceivers should the company use?

- A. 10GBASE-SW
- B. 10GBASE-LR
- C. 10GBASE-LX4 over multimode fiber
- D. 10GBASE-SR

Answer: B

Explanation:

10GBASE-LR is a standard for 10 Gbps Ethernet over single-mode fiber optic cable. It can support a maximum distance of 6.2 miles (10 km), which is much longer than the distance between the buildings. 10GBASE-SW, 10GBASE-LX4, and 10GBASE-SR are all standards for 10 Gbps Ethernet over multimode fiber optic cable, which have shorter maximum distances ranging from 984ft (300m) to 1,312ft (400m).
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 1.5: Compare and contrast network cabling types, standards and speeds.

NEW QUESTION 35

- (Topic 3)

A user calls the IT department to report being unable to log in after locking the computer. The user resets the password, but later in the day the user is again unable to log in after locking the computer. Which of the following attacks against the user is MOST likely taking place?

- A. Brute-force
- B. On-path
- C. Deauthentication
- D. Phishing

Answer: A

NEW QUESTION 37

- (Topic 3)

A technician installed an 8-port switch in a user's office. The user needs to add a second computer in the office, so the technician connects both PCs to the switch and connects the switch to the wall jack. However, the new PC cannot connect to network resources. The technician then observes the following:

- The new computer does not get an IP address on the client's VLAN.
- Both computers have a link light on their NICs.
- The new PC appears to be operating normally except for the network issue.
- The existing computer operates normally.

Which of the following should the technician do NEXT to address the situation?

- A. Contact the network team to resolve the port security issue.
- B. Contact the server team to have a record created in DNS for the new PC.
- C. Contact the security team to review the logs on the company's SIEM.
- D. Contact the application team to check NetFlow data from the connected switch.

Answer: A

NEW QUESTION 40

- (Topic 3)

A VOIP phone is plugged in to a port but cannot receive calls. Which of the following needs to be done on the port to address the issue?

- A. Trunk all VLANs on the port.
- B. Configure the native VLAN.
- C. Tag the traffic to voice VLAN.
- D. Disable VLANs.

Answer: C

Explanation:

To enable a VOIP phone to receive calls on a port, the traffic needs to be tagged to the voice VLAN that is configured on the switch. This allows the phone to communicate with the voice network and the PBX server. Tagging the traffic also separates the voice traffic from the data traffic that may be coming from a computer connected to the phone. The port should be configured to tag the traffic for the voice VLAN and untag the traffic for the data VLAN. Trunking all VLANs on the port is unnecessary and may cause security issues. Configuring the native VLAN is not relevant for this issue. Disabling VLANs would prevent the phone from working at all.

References:

Optical Fiber Connectors – CompTIA Network+ N10-007 – 2.13

? VoIP and computer on separate VLANs through one cable

NEW QUESTION 41

- (Topic 3)

A network engineer designed and implemented a new office space with the following characteristics:

| | |
|-----------------------------|---|
| Building construction type: | Brick |
| Layout: | 10,764sq ft (1,000sq m) commercial office space |
| Users: | 50 |
| Servers: | 2 |
| Laptops: | 50 |

One month after the office space was implemented, users began reporting dropped signals when entering another room and overall poor connections to the 5GHz network. Which of the following should the engineer do to best resolve the issue?

- A. use non-overlapping channels
- B. Reconfigure the network to support 2.4GHz
- C. Upgrade to WPA3.
- D. Change to directional antennas-

Answer: D

Explanation:

The best solution to resolve the issue of dropped signals and poor connections to the 5GHz network is to change to directional antennas. Directional antennas are antennas that focus the wireless signal in a specific direction, increasing the range and strength of the signal. Directional antennas are suitable for environments where there are obstacles or interference that can weaken or block the wireless signal. In the image, the office space has several walls and doors that can reduce the signal quality of the 5GHz network, which has a shorter wavelength and higher frequency than the 2.4GHz network. By using directional antennas, the network engineer can aim the wireless signal towards the desired areas and avoid the signal loss caused by the walls and doors. References: CompTIA Network+ N10-008 Certification Study Guide, page 76; The Official CompTIA Network+ Student Guide (Exam N10-008), page 2-19.

NEW QUESTION 43

- (Topic 3)

Which of the following is a security flaw in an application or network?

- A. A threat
- B. A vulnerability
- C. An exploit
- D. A risk

Answer: B

Explanation:

A vulnerability is a security flaw in an application or network that can be exploited by an attacker, allowing them to gain access to sensitive data or take control of the system. Vulnerabilities can range from weak authentication methods to unpatched software, allowing attackers to gain access to the system or data they would not otherwise be able to access. Exploits are programs or techniques used to take advantage of vulnerabilities, while threats are potential dangers, and risks are the likelihood of a threat becoming a reality.

NEW QUESTION 47

- (Topic 3)

A network administrator needs to monitor traffic on a specific port on a switch. Which of the following should the administrator configure to accomplish the task?

- A. Port security
- B. Port tagging
- C. Port mirroring
- D. Media access control

Answer: C

Explanation:

Port mirroring is a technique that allows a network administrator to monitor the traffic on a specific port on a switch by sending a copy of the packets seen on that port to another port where a monitoring device is connected. Port mirroring can be used to analyze and debug data, diagnose errors, or perform security audits on the network without affecting the normal operation of the switch.

NEW QUESTION 49

- (Topic 3)

Which of the following is the most secure connection used to inspect and provide controlled internet access when remote employees are connected to the corporate network?

- A. Site-to-site VPN
- B. Full-tunnel VPN
- C. Split-tunnel VPN
- D. SSH

Answer: B

Explanation:

A full-tunnel VPN is a type of virtual private network (VPN) that encrypts and routes all the traffic from the remote device to the corporate network, regardless of the destination or protocol. This provides a secure connection for the remote employees to access the corporate resources, as well as inspect and control the internet access through the corporate firewall and proxy servers. A full-tunnel VPN also prevents any leakage of sensitive data or exposure to malicious attacks from the public internet. A full-tunnel VPN is more secure than a split-tunnel VPN, which only encrypts and routes the traffic destined for the corporate network, while allowing the traffic for other destinations to bypass the VPN and use the local internet connection. A site-to-site VPN is a type of VPN that connects two or more networks, such as branch offices or data centers, over the internet. It is not suitable for connecting individual remote employees to the corporate network. SSH stands for Secure Shell, and it is a protocol that allows secure remote login and command execution over an encrypted channel. It is not a type of VPN, and it does not provide controlled internet access. References: CompTIA Network+ N10-008 Cert Guide, Chapter 5, Section 5.3

NEW QUESTION 54

- (Topic 3)

A WAN technician reviews activity and identifies newly installed hardware that is causing outages over an eight-hour period. Which of the following should be considered FIRST?

- A. Network performance baselines
- B. VLAN assignments
- C. Routing table
- D. Device configuration review

Answer: D

Explanation:

The most likely cause of outages due to newly installed hardware is a misconfiguration of the device settings. Therefore, the first step should be to review the device configuration and check for any errors or inconsistencies that might affect the WAN connectivity. References: Network+ Study Guide Objective 2.1: Explain the importance of network documentation.

NEW QUESTION 59

- (Topic 3)

A network resource was accessed by an outsider as a result of a successful phishing campaign. Which of the following strategies should be employed to mitigate the effects of phishing?

- A. Multifactor authentication
- B. Single sign-on
- C. RADIUS
- D. VPN

Answer: A

Explanation:

Multifactor authentication is a security measure that requires users to provide multiple pieces of evidence before they can access a network resource. This could include requiring users to enter a username, password, and a code sent to the user's mobile phone before they are allowed access. This ensures that the user is who they say they are, reducing the risk of malicious actors gaining access to network resources as a result of a successful phishing campaign.

NEW QUESTION 63

- (Topic 3)

A network technician receives a support ticket concerning multiple users who are unable access the company's shared drive. The switch interface that the shared drive is connected to is displaying the following:

```
GigabitEthernet0/9 is down, line protocol is down (notconnect)
Hardware is Gigabit Ethernet, address is C800.84bf.9847 (via c800.84bf.9847)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
```

Which of the following is MOST likely the issue?

- A. The switchport is shut down
- B. The cable is not plugged in.
- C. The loopback is not set
- D. The bandwidth configuration is incorrect.

Answer: A

Explanation:

The switchport is shut down, which means it is administratively disabled and cannot forward traffic. The image shows that the switchport status is "down" and the protocol status is "down", indicating that there is no physical or logical connection. The cable is plugged in, as shown by the "connected" message under the interface name. The loopback is not set, as shown by the "loopback not set" message under the encapsulation type. The bandwidth configuration is correct, as shown by the "BW 10000 Kbit/sec" message under the MTU size. References: [CompTIA Network+ Certification Exam Objectives], Domain 3.0 Infrastructure, Objective 3.1: Given a scenario, use appropriate networking tools, Subobjective: Command line tools (ping, netstat, tracer, etc.)

NEW QUESTION 65

- (Topic 3)

A help desk technician is concerned that a client's network cable issues may be causing intermittent connectivity. Which of the following would help the technician determine if this is the issue?

- A. Run the show interface command on the switch
- B. Run the traceroute command on the server
- C. Run iperf on the technician's desktop
- D. Ping the client's computer from the router
- E. Run a port scanner on the client's IP address

Answer: A

Explanation:

To determine if a client's network cable issues may be causing intermittent connectivity, the help desk technician can run the show interface command on the switch.

This command allows the technician to view the status and statistics of the various interfaces on the switch, including the physical link status and the number of transmitted and received packets. If the interface is experiencing a large number of errors or dropped packets, this could indicate a problem with the network cable or with the connection between the client's device and the switch.

"Cisco routers and switches have a show interfaces IOS command that provides interface statistics/status information, including link state (up/down), speed/duplex, send/receive traffic, cyclic redundancy checks (CRCs), and protocol packet and byte counts."

NEW QUESTION 69

- (Topic 3)

Which of the following should a network administrator configure when adding OT devices to an organization's architecture?

- A. Honeynet
- B. Data-at-rest encryption
- C. Time-based authentication
- D. Network segmentation

Answer: D

Explanation:

Network segmentation is the process of dividing a network into smaller subnets or segments, each with its own security policies and access controls. This can help isolate OT devices from IT devices, guest networks, and other potential threats, as well as improve network performance and efficiency. Network segmentation is a recommended security practice for OT environments, as it can limit the attack surface, contain the damage of a breach, and comply with regulatory standards.
<https://sectrio.com/complete-guide-to-ot-network-segmentation/>

NEW QUESTION 71

- (Topic 3)

After installing a new wireless access point, an engineer tests the device and sees that it is not performing at the rated speeds. Which of the following should the engineer do to troubleshoot the issue? (Select two).

- A. Ensure a bottleneck is not coming from other devices on the network.
- B. Install the latest firmware for the device.
- C. Create a new VLAN for the access point.
- D. Make sure the SSID is not longer than 16 characters.
- E. Configure the AP in autonomous mode.
- F. Install a wireless LAN controller.

Answer: AB

Explanation:

One possible cause of poor wireless performance is a bottleneck in the network, which means that other devices or applications are consuming too much bandwidth or resources and limiting the speed of the wireless access point. To troubleshoot this issue, the engineer should ensure that there is no congestion or interference from other devices on the network, such as wired clients, servers, routers, switches, or other wireless access points. The engineer can use tools such as network analyzers, bandwidth monitors, or ping tests to check the network traffic and latency¹².

Another possible cause of poor wireless performance is outdated firmware on the device, which may contain bugs or vulnerabilities that affect the functionality or security of the wireless access point. To troubleshoot this issue, the engineer should install the latest firmware for the device from the manufacturer's website or support portal. The engineer should follow the instructions carefully and backup the configuration before updating the firmware. The engineer can also check the release notes or changelog of the firmware to see if there are any improvements or fixes related to the wireless performance³.

The other options are not relevant to troubleshooting poor wireless performance. Creating a new VLAN for the access point may help with network segmentation or security, but it will not improve the speed of the wireless connection. Making sure the SSID is not longer than 16 characters may help with compatibility or readability, but it will not affect the wireless performance. Configuring the AP in autonomous mode may give more control or flexibility to the engineer, but it will not enhance the wireless speed. Installing a wireless LAN controller may help with managing multiple access points or deploying advanced features, but it will not increase the wireless performance.

NEW QUESTION 76

- (Topic 3)

Which of the following would be BEST suited for a long cable run with a 40Gbps bandwidth?

- A. Cat 5e
- B. Cat 6a
- C. Cat 7
- D. Cat 8

Answer: C

Explanation:

Cat 7 is a type of twisted-pair copper cable that supports up to 40 Gbps bandwidth and up to 100 meters cable length. Cat 7 is suitable for long cable runs that require high-speed data transmission. Cat 7 has better shielding and crosstalk prevention than lower categories of cables.

References: Network+ Study Guide Objective 1.5: Compare and contrast network cabling types, features and their purposes.

NEW QUESTION 80

- (Topic 3)

Which of the following options represents the participating computers in a network?

- A. Nodes
- B. CPUs
- C. Servers
- D. Clients

Answer: A

NEW QUESTION 81

- (Topic 3)

To reduce costs and increase mobility, a Chief Technology Officer (CTO) wants to adopt cloud services for the organization and its affiliates. To reduce the impact for users, the CTO wants key services to run from the on-site data center and enterprise services to run in the cloud. Which of the following deployment models is the best choice for the organization?

- A. Public
- B. Hybrid
- C. SaaS
- D. Private

Answer: B

Explanation:

A hybrid cloud deployment model is a combination of on-premise and cloud solutions, where some resources are hosted in-house and some are hosted by a cloud provider. A hybrid cloud model can offer the benefits of both public and private clouds, such as scalability, cost-efficiency, security, and control¹². A hybrid cloud model can also reduce the impact for users, as they can access the key services from the on-site data center and the enterprise services from the cloud.

NEW QUESTION 82

- (Topic 3)

Which of the following DHCP settings would be used to ensure a device gets the same IP address each time it is connected to the network?

- A. Scope options
- B. Reservation
- C. Exclusion
- D. Relay
- E. Pool

Answer: A

NEW QUESTION 86

- (Topic 3)

Which of the following topologies requires the MOST connections when designing a network?

- A. Mesh
- B. Star
- C. Bus
- D. Ring

Answer: A

NEW QUESTION 91

- (Topic 3)

A technician was cleaning a storage closet and found a box of transceivers labeled 8Gbps. Which of the following protocols uses those transceivers?

- A. Coaxial over Ethernet
- B. Internet Small Computer Systems Interface
- C. Fibre Channel
- D. Gigabit interface converter

Answer: C

Explanation:

The transceivers labeled 8Gbps are likely to be used with the Fibre Channel protocol. Fibre Channel is a high-speed networking technology that is primarily used to connect storage devices to servers in storage area networks (SANs). It is capable of transmitting data at speeds of up to 8 Gbps (gigabits per second), and uses specialized transceivers to transmit and receive data over fiber optic cables.

Coaxial over Ethernet (CoE) is a networking technology that uses coaxial cables to transmit data, and is not related to the transceivers in question. Internet Small Computer Systems Interface (iSCSI) is a protocol that allows devices to communicate over a network using the SCSI protocol, and does not typically use specialized transceivers. Gigabit interface converter (GBIC) is a type of transceiver used to transmit and receive data over fiber optic cables, but it is not capable of transmitting data at 8 Gbps.

NEW QUESTION 92

- (Topic 3)

A company wants to invest in new hardware for the core network infrastructure. The management team requires that the infrastructure be capable of being repaired in less than 60 minutes if any major part fails. Which of the following metrics is MOST likely associated with this requirement?

- A. RPO
- B. MTTR
- C. FHRP
- D. MTBF

Answer: B

Explanation:

MTTR is directly related to how quickly a system can be repaired if any major part fails. The management team requires that the infrastructure be capable of being repaired in less than 60 minutes, which means they have a low MTTR requirement.

MTTR stands for Mean Time To Repair and is a metric used to measure the average amount of time it takes to repair a failed component or system. In this case, the requirement is for the infrastructure to be capable of being repaired in less than 60 minutes if any major part fails, which means the MTTR should be less than 60 minutes.

NEW QUESTION 96

- (Topic 3)

Which of the following layers of the OSI model has new protocols activated when a user moves from a wireless to a wired connection?

- A. Data link
- B. Network
- C. Transport
- D. Session

Answer: A

Explanation:

"The Data Link layer also determines how data is placed on the wire by using an access method. The wired access method, carrier-sense multiple access with collision detection (CSMA/CD), was once used by all wired Ethernet networks, but is automatically disabled on switched full-duplex links, which have been the norm for decades. Carrier-sense multiple access with collision avoidance (CSMA/CA) is used by wireless networks, in a similar fashion."

NEW QUESTION 101

- (Topic 3)

An online gaming company needs a cloud solution that will allow for more virtual resources to be deployed when tournaments are held. The number of users who access the service increases during tournaments. The company also needs the resources to return to baseline levels once the resources are not needed in order to reduce cost. Which of the following cloud concepts would provide the best solution?

- A. Scalability
- B. Hybrid
- C. Multitenancy
- D. Elasticity

Answer: D**Explanation:**

Elasticity is the ability of a cloud service to automatically adjust the amount of resources allocated to meet the changing demand of the users. Elasticity enables a cloud service to scale up or down resources quickly and efficiently, without requiring manual intervention or planning. Elasticity is ideal for scenarios where the demand is unpredictable, dynamic, or seasonal, such as online gaming tournaments. By using elasticity, the online gaming company can ensure optimal performance and user experience during peak times, while also saving costs and avoiding overprovisioning during off-peak times.

The other options are not correct because they do not address the specific needs of the online gaming company. They are:

- Scalability is the ability of a cloud service to handle an increase or decrease in the demand of the users by adding or removing resources. Scalability is similar to elasticity, but it is more manual, planned, and predictive, while elasticity is automatic, prompt, and reactive. Scalability is suitable for scenarios where the demand is steady, predictable, or gradual, such as a growing business or a long-term project.
- Hybrid is a type of cloud model that combines two or more clouds, such as on-premises private, hosted private, or public, that can be centrally managed to enable interoperability for various use cases. Hybrid cloud can offer benefits such as flexibility, security, and cost-efficiency, but it does not directly address the need for dynamic resource allocation for the online gaming company.
- Multitenancy is a feature of cloud services that allows multiple users or customers to share the same physical or virtual resources, such as servers, databases, or applications, while maintaining isolation and privacy. Multitenancy can offer benefits such as efficiency, scalability, and cost-effectiveness, but it does not directly address the need for dynamic resource allocation for the online gaming company.

References

1: Understand cloud concepts | Microsoft Press Store 2: What Is Hybrid Cloud? - Cisco

3: Difference between Elasticity and Scalability in Cloud Computing 4: Scalability and Elasticity in Cloud Computing - GeeksforGeeks

NEW QUESTION 106

- (Topic 3)

During an annual review of policy documents, a company decided to adjust its recovery time frames. The company agreed that critical applications can be down for no more than six hours, and the acceptable amount of data loss is no more than two hours. Which of the following should be documented as the RPO?

- A. Two hours
- B. Four hours
- C. Six hours
- D. Eight hours

Answer: A**Explanation:**

"RPO designates the variable amount of data that will be lost or will have to be re-entered during network downtime. RTO designates the amount of "real time" that can pass before the disruption begins to seriously and unacceptably impede the flow of normal business operations."

NEW QUESTION 107

- (Topic 3)

All packets arriving at an interface need to be fully analyzed. Which of the following features should be used to enable monitoring of the packets?

- A. LACP
- B. Flow control
- C. Port mirroring
- D. NetFlow exporter

Answer: D**Explanation:**

Port mirroring is a feature that can be used to enable monitoring of all packets arriving at an interface. This feature is used to direct a copy of all traffic passing through the switch to a monitoring device, such as a network analyzer. This allows the switch to be monitored with the network analyzer in order to identify any malicious or suspicious activity. Additionally, port mirroring can be used to troubleshoot network issues, such as latency or poor performance.

NEW QUESTION 110

- (Topic 3)

A company has wireless APS that were deployed with 802.11g. A network engineer has noticed more frequent reports of wireless performance issues during the lunch hour in comparison to the rest of the day. The engineer thinks bandwidth consumption will increase while users are on their breaks, but network utilization logs do not show increased bandwidth numbers. Which of the following would MOST likely resolve this issue?

- A. Adding more wireless APS
- B. Increasing power settings to expand coverage
- C. Configuring the APS to be compatible with 802.11a
- D. Changing the wireless channel used

Answer: C**Explanation:**

* 802.11g is an older wireless standard that operates in the 2.4 GHz frequency band and has a maximum data rate of 54 Mbps. 802.11a is a newer wireless standard that operates in the 5 GHz frequency band and has a maximum data rate of 54 Mbps. By configuring the APS to be compatible with 802.11a, the network

engineer can reduce interference and congestion in the 2.4 GHz band and improve wireless performance.
References: Network+ Study Guide Objective 2.5: Implement network troubleshooting methodologies

NEW QUESTION 112

- (Topic 3)

A network technician needs to select an AP that will support at least 1.3Gbps and 5GHz only. Which of the following wireless standards must the AP support to meet the requirements?

- A. B
- B. AC
- C. AX
- D. N
- E. G

Answer: B

Explanation:

Wireless AC is a wireless standard that supports up to 1.3Gbps data rate and operates in the 5GHz frequency band only. Wireless AC is also backward compatible with wireless A and N devices that use the 5GHz band. Wireless AC is suitable for high-performance applications such as HD video streaming and online gaming.
References: Network+ Study Guide Objective 2.2: Explain the purposes and properties of routing and switching. Subobjective: Wireless standards and their characteristics.

NEW QUESTION 115

- (Topic 3)

A network administrator is in the process of installing 35 PoE security cameras. After the administrator installed and tested the new cables, the administrator installed the cameras. However, a small number of the cameras do not work. Which of the following is the most likely reason?

- A. Incorrect wiring standard
- B. Power budget exceeded
- C. Signal attenuation
- D. Wrong voltage

Answer: B

Explanation:

The power budget is the total amount of power that a PoE switch or injector can provide to the connected PoE devices. If the power budget is exceeded, some of the PoE devices may not receive enough power to function properly. To troubleshoot this issue, the network administrator should check the power consumption of each PoE device and the power capacity of the PoE switch or injector.

References:

- ? PoE Troubleshooting: The Common PoE Errors and Solutions1
- ? Security Camera Won't Work - Top 10 Solutions to Fix2
- ? CompTIA Network+ N10-008 Exam Objectives <https://www.comptia.org/certifications/network#examdetails>

NEW QUESTION 116

- (Topic 3)

An organization has a security staff shortage and must prioritize efforts in areas where the staff will have the most impact. In particular, the focus is to avoid expending resources on identifying non-relevant events. A security analyst is reviewing web server logs and sees the following:

```
202.180.155.1 - [14/Jan/2021:04:12:28 -0200] "GET /img/us.gif" 404 295
202.180.155.1 - [14/Jan/2021:04:12:28 -0200] "GET /img/org.gif" 404 295
202.180.155.1 - [14/Jan/2021:04:12:29 -0200] "GET /img/org2.gif" 404 295
202.180.155.1 - [14/Jan/2021:04:12:29 -0200] "GET /img/org3.gif" 404 295
202.180.155.1 - [14/Jan/2021:04:12:30 -0200] "GET /img/org4.gif" 404 295
202.180.155.1 - [14/Jan/2021:04:12:31 -0200] "GET /img/directors.gif" 404 295
202.180.155.1 - [14/Jan/2021:04:12:31 -0200] "GET /img/directors2.gif" 404 295
202.180.155.1 - [14/Jan/2021:04:12:32 -0200] "GET /img/directors3.gif" 404 295
202.180.155.1 - [14/Jan/2021:04:12:33 -0200] "GET /img/directors4.gif" 404 295
```

Which of the following should the analyst recommend?

- A. Configuring the web server log to filter out 404 errors on image files
- B. Updating firewall rules to block 202.180.155.1
- C. Resyncing the network time server and monitoring logs for future anomalous behavior
- D. Checking with the penetration testing team to see if the team ran any scans on January 14, 2021

Answer: A

Explanation:

This answer will help the organization to avoid expending resources on identifying non-relevant events, as the 404 errors on image files are not indicative of any security threat or issue, but rather a misconfiguration or a broken link on the web server. The 404 errors on image files are also very frequent and repetitive, as shown by the web server log, which can clutter the log and make it harder to spot any relevant events. By filtering out these errors, the analyst can focus on more important events and reduce the noise in the log. The other answers are not as good as A, because they either do not address the problem of identifying non-relevant events, or they are based on incorrect assumptions or information. For example:

? B. Updating firewall rules to block 202.180.155.1 is not a good answer, because the IP address 202.180.155.1 is not doing anything malicious or suspicious, but rather requesting image files that do not exist on the web server. Blocking this IP address will not improve the security of the web server, but rather create unnecessary firewall rules and possibly deny legitimate access to the web server.

? C. Resyncing the network time server and monitoring logs for future anomalous behavior is not a good answer, because there is no evidence that the network time server is out of sync or causing any problems. The web server log shows that the entries are all within a few minutes of each other, which is normal and expected. Resyncing the network time server will not help the analyst to identify non-relevant events, but rather waste time and resources on an unrelated task.

? D. Checking with the penetration testing team to see if the team ran any scans on January 14, 2021 is not a good answer, because the web server log does not show any signs of a penetration test or a scan. The log shows only 404 errors on image files, which are not typical of a penetration test or a scan, which would

usually target different types of files, ports, or vulnerabilities. Checking with the penetration testing team will not help the analyst to identify non-relevant events, but rather distract the analyst from the actual events and possibly create false alarms.

<https://www.professormesser.com/network-plus/n10-008/n10-008-video/general-network-troubleshooting-n10-008/>

NEW QUESTION 117

- (Topic 3)

After upgrading to a SOHO router that supports Wi-Fi 6, the user determines throughput has not increased. Which of the following is the MOST likely cause of the issue?

- A. The wireless router is using an incorrect antenna type.
- B. The user's workstation does not support 802.11 ax.
- C. The encryption protocol is mismatched
- D. The network is experiencing interference.

Answer: B

Explanation:

The user's workstation does not support 802.11 ax, which is the technical name for Wi-Fi 6. Wi-Fi 6 is a new wireless standard that offers faster speeds, higher capacity, and lower latency than previous standards. However, to take advantage of these benefits, both the router and the workstation need to support Wi-Fi 6. If the workstation only supports an older standard, such as 802.11 ac or Wi-Fi 5, then the throughput will not increase even if the router supports Wi-Fi 6. References: [CompTIA Network+ Certification Exam Objectives], What is Wi-Fi 6? Here's what you need to know | PCWorld

NEW QUESTION 120

- (Topic 3)

A Network engineer is investigating issues on a Layer 2 Switch. The department typically snares a Switchport during meetings for presentations, but after the first user Shares, no Other users can connect. Which Of the following is MOST likely related to this issue?

- A. Spanning Tree Protocol is enabled on the switch.
- B. VLAN trunking is enabled on the switch.
- C. Port security is configured on the switch.
- D. Dynamic ARP inspection is configured on the switch.

Answer: C

NEW QUESTION 124

- (Topic 3)

A technician is investigating packet loss to a device that has varying data bursts throughout the day. Which of the following will the technician MOST likely configure to resolve the issue?

- A. Flow control
- B. Jumbo frames
- C. Duplex
- D. Port mirroring

Answer: A

Explanation:

Ethernet flow control is a mechanism for temporarily stopping the transmission of data on Ethernet family computer networks. The goal of this mechanism is to avoid packet loss in the presence of network congestion.

Flow control is a mechanism that allows a device to regulate the amount of data it receives from another device, ensuring that the receiving device is not overwhelmed with data. If the device experiencing packet loss is receiving large bursts of data at times when it is not able to process it quickly enough, configuring flow control could help prevent packets from being lost.

"In theory, flow control can help with situations like a host that can't keep up with the flow of traffic. It enables the host to send an Ethernet PAUSE frame, which asks the switch to hold up for some amount of time so the host can catch its breath. If the switch can, it'll buffer transmissions until the pause expires, and then start sending again. If the host catches up early, it can send another PAUSE frame with a delay of zero to ask the switch to resume. In practice, flow control can cause latency trouble for modern real-time applications such as VoIP, and the same needs are usually met by QoS"

NEW QUESTION 125

- (Topic 3)

A network engineer is installing hardware in a newly renovated data center. Major concerns that were addressed during the renovation included air circulation, building power redundancy, and the need for continuous monitoring. The network engineer IS creating alerts based on the following operation specifications:

| | |
|--------------------------|---------------------|
| AC input voltage | 100 to 240VAC |
| AC maximum input current | <2.7A at 100V |
| Redundant power supply | Yes |
| Operating temperature | 32–104°F (0–40°C) |
| Storage temperature | -4–149°F (-20–65°C) |
| Operating humidity | 10–85% |
| Storage humidity | 5–95% |

Which of the following should the network engineer configure?

- A. Environmental monitoring alerts for humidity greater than 95%

- B. SIEM to parse syslog events for a failed power supply
- C. SNMP traps to report when the chassis temperature exceeds 95°F (35°C)
- D. UPS monitoring to report when input voltage drops below 220VAC

Answer: C

Explanation:

The alert that the network engineer should configure based on the operation specifications is SNMP traps to report when the chassis temperature exceeds 95°F (35°C). SNMP (Simple Network Management Protocol) is a protocol that allows network devices to communicate their status and performance information to a central management system, called an SNMP manager. SNMP traps are messages that are sent by network devices to notify the SNMP manager of an event or condition that requires attention, such as an error, a failure, or a threshold violation. In this case, the network engineer should configure SNMP traps on the network devices to send an alert when their chassis temperature exceeds 95°F (35°C), which is the maximum operating temperature specified in the table. This alert would help the network engineer monitor and troubleshoot any overheating issues that could affect the network performance or availability. References: CompTIA Network+ N10-008 Certification Study Guide, page 228; The Official CompTIA Network+ Student Guide (Exam N10-008), page 8-11.

NEW QUESTION 130

- (Topic 3)

During a recent security audit, a contracted penetration tester discovered the organization uses a number of insecure protocols. Which of the following ports should be disallowed so only encrypted protocols are allowed? (Select TWO).

- A. 22
- B. 23
- C. 69
- D. 443
- E. 587
- F. 8080

Answer: BC

NEW QUESTION 135

- (Topic 3)

An infrastructure company is implementing a cabling solution to connect sites on multiple continents. Which of the following cable types should the company use for this project?

- A. Cat 7
- B. Single-mode
- C. Multimode
- D. Cat 6

Answer: B

Explanation:

Single-mode fiber is a type of optical fiber that has a small core diameter and allows only one mode of light to propagate. This reduces signal attenuation and increases transmission distance, making it suitable for long-distance communication networks.

Single-mode fiber can carry data over thousands of kilometers without requiring repeaters or amplifiers. Single-mode fiber is also immune to electromagnetic interference and has a higher bandwidth than multimode fiber. Therefore, single-mode fiber is the best cable type for connecting sites on multiple continents. References: [CompTIA Network+ Certification Exam Objectives], [Single-mode optical fiber - Wikipedia]

Single-mode fiber optic cable uses a single ray of light to transmit data. This allows it to achieve very low attenuation and high bandwidth.

Multimode fiber optic cable uses multiple rays of light to transmit data. This results in higher attenuation and lower bandwidth than single-mode cable.

Twisted pair copper cable uses two insulated copper wires to transmit data. It is less expensive than fiber optic cable, but it has higher attenuation and lower bandwidth. When choosing a cable type for a long-distance application, it is important to consider the following factors:

? Attenuation: The amount of signal loss that occurs over the length of the cable.

? Bandwidth: The amount of data that can be transmitted over the cable per second.

? Cost: The cost of the cable and installation.

Single-mode fiber optic cable is the best choice for long-distance applications because it

has the lowest attenuation and highest bandwidth of any cable type. However, it is also the most expensive cable type.

NEW QUESTION 137

- (Topic 3)

An engineer needs to verify the external record for SMTP traffic. The engineer logged in to the server and entered the nslookup command. Which of the following commands should the engineer send before entering the DNS name?

- A. set type=A
- B. is -d company-mail.com
- C. set domain=company.mail.com
- D. set querytype=Mx

Answer: D

NEW QUESTION 139

- (Topic 3)

After installing a series of Cat 8 keystones, a data center architect notices higher than normal interference during tests. Which of the following steps should the architect take to troubleshoot the issue?

- A. Check to see if the end connections were wrapped in copper tape before terminating.
- B. Use passthrough modular crimping plugs instead of traditional crimping plugs.
- C. Connect the RX/TX wires to different pins.
- D. Run a speed test on a device that can only achieve 100Mbps speeds.

Answer: A

Explanation:

Cat 8 keystones are shielded to prevent interference from external sources, but they also require proper grounding to avoid interference from within the cable. Wrapping the end connections with copper tape before terminating them is one way to ensure a good ground connection and reduce interference. Using passthrough modular crimping plugs, connecting the RX/TX wires to different pins, or running a speed test on a slow device are not relevant or effective steps to troubleshoot the issue.

References:

- ? CompTIA Network+ N10-008 Certification Study Guide, page 191
- ? CompTIA Network+ N10-008 Cert Guide, Deluxe Edition, page 362
- ? CAT8 RJ45 Keystone Problem : r/HomeNetworking2
- ? How to Terminate Cat8 Shielded Keystone Jacks3

NEW QUESTION 141

- (Topic 3)

A technician is concerned about unauthorized personnel moving assets that are installed in a data center server rack. The technician installs a networked sensor that sends an alert when the server rack door is opened. Which of the following did the technician install?

- A. Cipher lock
- B. Asset tags
- C. Access control vestibule
- D. Tamper detection

Answer: D

Explanation:

Tamper detection is a physical security feature that can alert the technician when someone opens the server rack door without authorization. Tamper detection sensors can be installed inside the equipment or on the rack itself, and they can send an alert via email, SMS, or other methods. Tamper detection can help prevent unauthorized access, theft, or damage to the network assets.

References:

- ? Physical Security – N10-008 CompTIA Network+ : 4.51

NEW QUESTION 144

- (Topic 3)

A network engineer is concerned about VLAN hopping happening on the network. Which of the following should the engineer do to address this concern?

- A. Configure private VLANs.
- B. Change the default VLAN.
- C. Implement ACLs on the VLAN.
- D. Enable dynamic ARP inspection.

Answer: B

Explanation:

VLAN hopping is a type of attack that allows an attacker to access or manipulate traffic on a different VLAN than the one they are connected to. One way to prevent VLAN hopping is to change the default VLAN on a switch. The default VLAN is the VLAN that is assigned to all ports on a switch by default, usually VLAN 1. If an attacker connects to an unused port on a switch that has not been configured with a specific VLAN, they can access or spoof traffic on the default VLAN. By changing the default VLAN to an unused or isolated VLAN, the network administrator can prevent unauthorized access or interference with legitimate traffic on other VLANs. References: <https://www.comptia.org/training/books/network-n10-008-study-guide> (page 308)

NEW QUESTION 148

- (Topic 3)

Which of the following is a benefit of the spine-and-leaf network topology?

- A. Increased network security
- B. Stable network latency
- C. Simplified network management
- D. Eliminated need for inter-VLAN routing

Answer: A

NEW QUESTION 149

- (Topic 3)

Which of the following is most likely to have the HIGHEST latency while being the most accessible?

- A. Satellite
- B. DSL
- C. Cable
- D. 4G

Answer: A

NEW QUESTION 154

- (Topic 3)

Which of the following security controls indicates unauthorized hardware modifications?

- A. Biometric authentication
- B. Media device sanitization

- C. Change management policy
- D. Tamper-evident seals

Answer: A

NEW QUESTION 158

- (Topic 3)

Which of the following steps of the troubleshooting methodology would most likely include checking through each level of the OSI model after the problem has been identified?

- A. Establish a theory.
- B. Implement the solution.
- C. Create a plan of action.
- D. Verify functionality.

Answer: C

Explanation:

Creating a plan of action is the step of the troubleshooting methodology that would most likely include checking through each level of the OSI model after the problem has been identified. According to the web search results, the troubleshooting methodology consists of the following steps: 12

? Define the problem: Identify the symptoms and scope of the problem, and gather relevant information from users, devices, and logs.

? Establish a theory: Based on the information collected, hypothesize one or more possible causes of the problem, and rank them in order of probability.

? Test the theory: Test the most probable cause first, and if it is not confirmed, eliminate it and test the next one. Repeat this process until the root cause is found or a new theory is needed.

? Create a plan of action: Based on the confirmed cause, devise a solution that can resolve the problem with minimal impact and risk. The solution may involve checking through each level of the OSI model to ensure that all layers are functioning properly and that there are no configuration errors, physical damages, or logical inconsistencies³⁴

? Implement the solution: Execute the plan of action, and monitor the results. If the problem is not solved, revert to the previous state and create a new plan of action.

? Verify functionality: Confirm that the problem is fully resolved and that the network is restored to normal operation. Perform preventive measures if possible to avoid recurrence of the problem.

? Document the findings: Record the problem description, the solution, and the outcome. Update any relevant documentation, such as network diagrams, policies, or procedures.

References¹: Troubleshooting Methods for Cisco IP Networks ²: Troubleshooting Methodologies - CBT IT Certification Training ³: How to use the OSI Model to Troubleshoot Networks ⁴: How is the OSI model used in troubleshooting? – Sage-Answer

NEW QUESTION 160

- (Topic 3)

A technician uses a badge to enter a security checkpoint on a corporate campus. An unknown individual quickly walks in behind the technician without speaking. Which of the following types of attacks did the technician experience?

- A. Tailgating
- B. Evil twin
- C. On-path
- D. Piggybacking

Answer: A

Explanation:

Tailgating is a type of physical security attack where an unauthorized person follows an authorized person into a restricted area without their consent or knowledge. Tailgating can allow an attacker to bypass security measures and gain access to sensitive information or resources. In this scenario, the technician experienced tailgating when the unknown individual walked in behind the technician without speaking. Piggybacking is similar to tailgating, but it involves the consent or cooperation of the authorized person. Evil twin is a type of wireless network attack where an attacker sets up a rogue access point that mimics a legitimate one. On-path is a type of network attack where an attacker intercepts and modifies traffic between two parties.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 3.2: Given a scenario, use appropriate network hardening techniques.

NEW QUESTION 163

- (Topic 3)

Which of the following is MOST appropriate for enforcing bandwidth limits when the performance of an application is not affected by the use of buffering but is heavily impacted by packet drops?

- A. Traffic shaping
- B. Traffic policing
- C. Traffic marking
- D. Traffic classification

Answer: B

Explanation:

Traffic policing is a mechanism that monitors the traffic in any network and enforces a bandwidth limit by discarding packets that exceed a certain rate¹. This can reduce congestion and ensure fair allocation of bandwidth among different applications or users. However, discarding packets can also affect the performance and quality of some applications, especially those that are sensitive to packet loss, such as voice or video. Traffic shaping is a congestion control mechanism that delays packets that exceed a certain rate instead of discarding them¹. This can smooth out traffic bursts and avoid packet loss, but it also introduces latency and jitter. Traffic shaping can be beneficial for applications that can tolerate some delay but not packet loss, such as file transfers or streaming.

Traffic marking is a mechanism that assigns different priority levels to packets based on their type, source, destination, or other criteria². This can help to differentiate between different classes of service and apply different policies or treatments to them. However, traffic marking does not enforce bandwidth limits by itself; it only provides information for other mechanisms to act upon.

Traffic classification is a process that identifies and categorizes packets based on their characteristics, such as protocol, port number, payload, or behavior. This can help to distinguish between different types of traffic and apply appropriate policies or actions to them. However, traffic classification does not enforce

bandwidth limits by itself; it only provides input for other mechanisms to use.

NEW QUESTION 167

- (Topic 3)

A network security administrator needs to monitor the contents of data sent between a secure network and the rest of the company. Which of the following monitoring methods will accomplish this task?

- A. Port mirroring
- B. Flow data
- C. Syslog entries
- D. SNMP traps

Answer: A

Explanation:

Port mirroring is a method of monitoring network traffic by copying the data packets from one port to another port on the same switch or router. This allows the network security administrator to analyze the contents of the data sent between different networks without affecting the performance or security of the original traffic. Port mirroring can be configured to capture all traffic or only specific types of traffic, such as VLANs, protocols, or IP addresses.

References:

? Port Mirroring - CompTIA Network+ N10-008 Domain 3.1 - YouTube1

? CompTIA Network+ Certification Exam Objectives, page 142

NEW QUESTION 169

- (Topic 3)

A network technician is troubleshooting a network issue for employees who have reported issues with speed when accessing a server in another subnet. The server is in another building that is 410ft (125m) away from the employees' building. The 10GBASE-T connection between the two buildings uses Cat 5e. Which of the following BEST explains the speed issue?

- A. The connection type is not rated for that distance
- B. A broadcast storm is occurring on the subnet.
- C. The cable run has interference on it
- D. The connection should be made using a Cat 6 cable

Answer: D

Explanation:

The 10GBASE-T connection between the two buildings uses Cat 5e, which is not rated for a distance of 410ft (125m). According to the CompTIA Network+ Study Manual, for 10GBASE-T connections, "Cat 5e is rated for up to 55m, Cat 6a is rated for 100m, and Cat 7 is rated for 150m." Therefore, the speed issue is likely due to the fact that the connection type is not rated for the distance between the two buildings. To resolve the issue, the technician should consider using a Cat 6a or Cat 7 cable to increase the distance the connection is rated for.

NEW QUESTION 174

- (Topic 3)

A network technician receives a report about a performance issue on a client PC that is connected to port 1/3 on a network switch. The technician observes the following configuration output from the switch:

| | | | | |
|-----|-----------|-----------|------|------|
| 1/1 | Client PC | Connected | Full | 1000 |
| 1/2 | Client PC | Connected | Full | 1000 |
| 1/3 | Client PC | Connected | Full | 10 |

Which of the following is a cause of the issue on port 1/3?

- A. Speed
- B. Duplex
- C. Errors
- D. VLAN

Answer: A

NEW QUESTION 177

- (Topic 3)

A network administrator is looking for a solution to extend Layer 2 capabilities and replicate backups between sites. Which of the following is the best solution?

- A. Security Service Edge
- B. Data center interconnect
- C. Infrastructure as code
- D. Zero trust architecture

Answer: B

Explanation:

Data center interconnect (DCI) is a solution that allows Layer 2 connectivity and data replication between geographically dispersed data centers. DCI can be implemented using various technologies, such as optical networks, MPLS, VPNs, or Ethernet. DCI can provide benefits such as improved disaster recovery, load balancing, resource pooling, and cloud services.

References:

? Data Center Interconnect - CompTIA Network+ N10-008 Domain 1.4 - YouTube1

? CompTIA Network+ Certification Exam Objectives, page 92

NEW QUESTION 180

- (Topic 3)

When accessing corporate network resources, users are required to authenticate to each application they try to access. Which of the following concepts does this BEST represent?

- A. SSO
- B. Zero Trust
- C. VPN
- D. Role-based access control

Answer: B

NEW QUESTION 182

- (Topic 3)

A divide-and-conquer approach is a troubleshooting method that involves breaking a complex problem into smaller and more manageable parts, and then testing each part to isolate the cause of the problem. In this scenario, the technician is using a divide-and-conquer approach by pinging the default gateway and DNS server of the workstation, which are two possible sources of connectivity issues. By pinging these devices, the technician can determine if the problem is related to the local network or the external network.

Which of the following most likely requires the use of subinterfaces?

- A. A router with only one available LAN port
- B. A firewall performing deep packet inspection
- C. A hub utilizing jumbo frames
- D. A switch using Spanning Tree Protocol

Answer: A

Explanation:

Subinterfaces are logical divisions of a physical interface that allow a router to communicate with multiple networks using a single LAN port. Subinterfaces can have different IP addresses, VLANs, and routing protocols. They are useful for reducing the number of physical interfaces and cables needed, as well as improving network performance and security.

References:

? Subinterfaces - CompTIA Network+ N10-008 Domain 1.21 - YouTube1

? CompTIA Network+ Certification Exam Objectives, page 92

NEW QUESTION 184

- (Topic 3)

Users report they cannot reach any websites on the internet. An on-site network engineer is able to duplicate the issue on a different PC. The network engineer then tries to ping a website and receives the following message:

Ping request could not find host www.google.com. Please check the name and try again. Which of the following is the next step the engineer should take?

- A. Ping 127. 0. 0. 1 to test local hardware.
- B. Test the website from outside the company.
- C. Ping internal name server functionality.
- D. Check internet firewall logs for blocked DNS traffi

Answer: C

Explanation:

The error message "Ping request could not find host www.google.com" indicates that the network engineer's PC cannot resolve the hostname www.google.com to its corresponding IP address. This means that there is a problem with the DNS (Domain Name System) service, which is responsible for translating hostnames to IP addresses and vice versa. The DNS service can be provided by internal or external name servers, depending on the network configuration.

The next step the engineer should take is to ping the internal name server functionality, which means to test if the PC can communicate with the name server that is configured in its network settings, and if the name server can resolve internal hostnames, such as those of the company's servers or devices. To do this, the engineer can use the following commands:

? To find out the IP address of the name server, use ipconfig /all and look for the DNS Servers entry.

? To ping the name server, use ping <name server IP address> and check if the packets are sent and received successfully.

? To test the name resolution, use nslookup <internal hostname> and check if the name server returns the correct IP address.

If the ping or the nslookup commands fail, it means that the internal name server is not working properly, and the engineer should troubleshoot the name server configuration or connectivity. If the ping and the nslookup commands succeed, it means that the internal name server is working properly, but there is a problem with the external name resolution, and the engineer should check the internet firewall logs for blocked DNS traffic, or test the website from outside the company.

ReferencesWindows 10 can't resolve hostnames - ping with IP works but not with hostnamePing request could not find host xyz.local. Please check the name and try againDNS problem, nslookup works, ping doesn't Users are connected to a switch on an Ethernet interface of a campus router. The service provider is connected to the serial 1 interface on the router. The output of the interfaces is:

E1/0: 192.168.8.1/24 S1: 192.168.7.252/30

NEW QUESTION 185

- (Topic 3)

A network consultant is installing a new wireless network with the following specifications:

5GHz

1,300Mbps 20/40/80MHz

Which of the following standards should the network consultant use?

- A. 802.11a
- B. 802.11ac
- C. 802.11b
- D. 802.11n

Answer: B

NEW QUESTION 186

- (Topic 3)

A network administrator is creating a VLAN that will only allow executives to connect to a data source. Which of the following is this scenario an example of?

- A. Availability
- B. Confidentiality
- C. Internal threat
- D. External threat
- E. Integrity

Answer: B

Explanation:

Confidentiality is the principle of preserving authorized restrictions on information access and disclosure, including means for protecting personal privacy and proprietary information¹. By creating a VLAN that will only allow executives to connect to a data source, the network administrator is implementing a form of network segmentation that enhances the confidentiality of the data. This prevents unauthorized users or processes from accessing or modifying the data, which could compromise its integrity or availability. Confidentiality is one of the components of the CIA triad, a widely used information security model that guides the efforts and policies aimed at keeping data secure²³⁴.

ReferencesDefending Your Network: A Comprehensive Guide to VLAN Hopping AttacksThe CIA triad: Definition, components and examples | CSO OnlineExecutive Summary — NIST SP 1800-25 documentationThe CIA Triad — Confidentiality, Integrity, and Availability ExplainedConfidentiality, Integrity and Availability - DevQA.io

NEW QUESTION 188

- (Topic 3)

A user cannot connect to the network, although others in the office are unaffected. The network technician sees that the link lights on the NIC are not on. The technician needs to check which switchport the user is connected to, but the cabling is not labeled. Which of the following is the best way for the technician to find where the computer is connected?

- A. Look up the computer's IP address in the switch ARP table.
- B. Use a cable tester to trace the cable.
- C. Look up the computer's MAC address in the switch CAM table.
- D. Use a tone generator to trace the cable.

Answer: D

Explanation:

A tone generator is a device that emits an audible signal on a wire. A tone probe is a device that detects the signal on the wire. By attaching the tone generator to one end of the cable and using the tone probe to scan the other end, the technician can identify which switchport the cable is connected to. This method does not require any knowledge of the computer's IP or MAC address, or access to the switch configuration. It is also faster and more reliable than physically tracing the cable or disconnecting the cable and looking for the link light to go out on the switch.

ReferencesHow to find what port im connected to on a switch from my PC?Switch Port Monitoring Guide - ComparitechFinding Out Which Network Switch Port My Computer is Connected

NEW QUESTION 191

- (Topic 3)

Which of the following ports should a network administrator enable for encrypted log-in to a network switch?

- A. 22
- B. 23
- C. 80
- D. 123

Answer: A

Explanation:

Port 22 is used by Secure Shell (SSH), which is a protocol that provides a secure and encrypted method for remote access to hosts by using public-key cryptography and challenge-response authentication. SSH can be used to log in to a network switch and configure it without exposing the credentials or commands to eavesdropping or tampering. Port 23 is used by Telnet, which is an insecure and plaintext protocol for remote access. Port 80 is used by HTTP, which is a protocol for web communication. Port 123 is used by NTP, which is a protocol for time synchronization

NEW QUESTION 195

- (Topic 3)

A non-employee was able to enter a server room. Which of the following could have prevented this from happening?

- A. A security camera
- B. A biometric reader
- C. OTP key fob
- D. Employee training

Answer: B

Explanation:

A biometric reader is a device that scans a person's physical characteristics, such as fingerprints, iris, or face, and compares them to a database of authorized users. A biometric reader can be used to restrict access to a server room and prevent unauthorized entry. A biometric reader provides a high level of security and cannot be easily bypassed or duplicated.

References: Network+ Study Guide Objective 5.1: Summarize the importance of physical security controls.

NEW QUESTION 196

- (Topic 3)

Switch 3 was recently added to an existing stack to extend connectivity to various parts of the network. After the update, new employees were not able to print to the main networked copiers from their workstations. Following are the port configurations for the switch stack in question:

Switch 1:

| | Ports 1–12 | Ports 13–24 | Ports 25–36 | Ports 37–44 | Ports 45–48 |
|-------------|--------------|-------------|--------------|--------------|-------------|
| Description | Workstations | Printers | Workstations | Wireless APs | Uplink |
| VLAN | 20 | 60 | 20 | 80 | 20/60/80 |
| Duplex | Full | Full | Full | Full | Full |
| Status | Active | Active | Active | Active | Active |

Switch 2:

| | Ports 1–12 | Ports 13–24 | Ports 25–36 | Ports 37–44 | Ports 45–48 |
|-------------|--------------|-------------|--------------|--------------|-------------|
| Description | Workstations | Printers | Workstations | Wireless APs | Uplink |
| VLAN | 20 | 60 | 20 | 80 | 20/60/80 |
| Duplex | Full | Full | Full | Full | Full |
| Status | Active | Active | Shut down | Active | Active |

Switch 3:

| | Ports 1–12 | Ports 13–24 | Ports 25–36 | Ports 37–44 | Ports 45–48 |
|-------------|--------------|-------------|--------------|--------------|-------------|
| Description | Workstations | Printers | Workstations | Wireless APs | Uplink |
| VLAN | 20 | 80 | 20 | 80 | 20/60/80 |
| Duplex | Full | Full | Full | Full | Full |
| Status | Active | Shut down | Shut down | Shut down | Active |

Which of the following should be configured to resolve the issue? (Select TWO).

- A. Enable the printer ports on Switch 3.
- B. Reconfigure the duplex settings on the printer ports on Switch 3.
- C. Reconfigure the VLAN on an printer ports to VLAN 20.
- D. Enable all ports that are shut down on me stack.
- E. Reconfigure the VLAN on the printer ports on Switch 3.
- F. Enable wireless APs on Switch 3.

Answer: AE

NEW QUESTION 197

- (Topic 3)

A technician needs to configure a routing protocol for an internet-facing edge router. Which of the following routing protocols will the technician MOST likely use?

- A. BGP
- B. RIPv2
- C. OSPF
- D. EIGRP

Answer: A

NEW QUESTION 201

- (Topic 3)

A network administrator has received calls every day for the past few weeks from three users who cannot access the network. The administrator asks all the users to reboot their PCs, but the same users still cannot access the system. The following day, three different users report the same issue, and the administrator asks them all to reboot their PCs; however, this does not fix the issue. Which of the following is MOST likely occurring?

- A. Incorrect firewall settings
- B. Inappropriate VLAN assignment
- C. Hardware failure
- D. Overloaded CAM table in switch
- E. DHCP scope exhaustion

Answer: E

NEW QUESTION 204

- (Topic 3)

An organization has experienced an increase in malicious spear-phishing campaigns and wants to mitigate the risk of hyperlinks from inbound emails. Which of the following appliances would best enable this capability?

- A. Email protection gateway
- B. DNS server
- C. Proxy server
- D. Endpoint email client
- E. Sandbox

Answer: A

Explanation:

An email protection gateway is an appliance that can filter and block malicious emails and attachments before they reach the recipients. An email protection gateway can mitigate the risk of hyperlinks from inbound emails by scanning the links for malicious content, rewriting the links to point to a safe domain, or blocking the links altogether. An email protection gateway can also perform other functions such as spam filtering, antivirus scanning, encryption, and data loss prevention. A DNS server, a proxy server, an endpoint email client, and a sandbox are not appliances that can enable this capability, as they have different purposes and functions.

References

- ? 1: CompTIA Network+ N10-008 Certification Study Guide, page 304
- ? 2: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 15
- ? 3: CompTIA Network+ N10-008 Certification Practice Test, question 5
- ? 4: Email Protection Gateway – N10-008 CompTIA Network+ : 3.2

NEW QUESTION 209

- (Topic 3)

An international company is transferring its IT assets including a number of WAPs from the United States to an office in Europe for deployment. Which of the following considerations should the company research before implementing the wireless hardware?

- A. WPA2 cipher
- B. Regulatory Impacts
- C. CDMA configuration
- D. 802.11 standards

Answer: B

Explanation:

When transferring IT assets, including wireless access points (WAPs), from one country to another, it's important to research the regulatory impacts of the move. Different countries have different regulations and compliance requirements for wireless devices, such as frequency bands, power levels, and encryption standards. Failing to comply with these regulations can result in fines or other penalties.

NEW QUESTION 213

- (Topic 3)

A network engineer is investigating reports of poor network performance. Upon reviewing a report, the engineer finds hundreds of CRC errors on an interface. Which of the following is the MOST likely cause of these errors?

- A. A bad wire on the Cat 5e cable
- B. The wrong VLAN assignment to the switchport
- C. A misconfigured QoS setting on the router
- D. Both sides of the switch trunk set to full duplex

Answer: A

NEW QUESTION 217

- (Topic 3)

Which of the following OSI model layers is where a technician would view UDP information?

- A. Physical
- B. Data link
- C. Network
- D. Transport

Answer: D

NEW QUESTION 221

- (Topic 3)

A company wants to implement a disaster recovery site for non-critical applications, which can tolerate a short period of downtime. Which of the following types of sites should the company implement to achieve this goal?

- A. Hot
- B. Cold
- C. warm
- D. Passive

Answer: C

Explanation:

The type of site that the company should implement for non-critical applications that can tolerate a short period of downtime is a warm site. A warm site is a disaster recovery site that has some pre-installed equipment and software, but not as much as a hot site, which is fully operational and ready to take over the primary site's functions in case of a disaster. A warm site requires some time and effort to activate and synchronize with the primary site, but not as much as a

cold site, which has no equipment or software installed and requires a lot of configuration and testing. A passive site is not a common term for a disaster recovery site, but it could refer to a site that only receives backups from the primary site and does not actively participate in the network operations. References: CompTIA Network+ N10-008 Certification Study Guide, page 347; The Official CompTIA Network+ Student Guide (Exam N10-008), page 13-10.

NEW QUESTION 226

- (Topic 3)

A network technician is investigating why a core switch is logging excessive amounts of data to the syslog server. The running configuration of the switch showed the following logging information:

```
ip ssh logging events
logging level debugging
logging host 192.168.1.100
logging synchronous
```

Which of the following changes should the technician make to BEST fix the issue?

- A. Update the logging host IP
- B. Change to asynchronous logging.
- C. Stop logging SSH events.
- D. Adjust the logging level.

Answer: D

Explanation:

The logging level is set to debugging, which is the most verbose and detailed level of logging. This means that the switch will send a lot of information to the syslog server, which can cause excessive network traffic and storage consumption. To fix the issue, the technician should adjust the logging level to a lower value, such as informational or warning, which will reduce the amount of data logged

NEW QUESTION 228

- (Topic 3)

A technician is troubleshooting a user's connectivity issues and finds that the computer's IP address was changed to 169.254.0.1.

Which of the following is the most likely reason?

- A. Two or more computers have the same IP address in the ARP table.
- B. The computer automatically set this address because the DHCP was not available.
- C. The computer was set up to perform as an NTP server.
- D. The computer is on a VPN and is the first to obtain a different IP address in that network.

Answer: B

Explanation:

IP addresses beginning with 169.254. are called link-local addresses or APIPA (Automatic Private IP Addressing)¹. They are assigned by the computer itself when it cannot reach a DHCP server to obtain a valid IP address from the network². This can happen for several reasons, such as a faulty router, a misconfigured network, or a disconnected cable³.

To troubleshoot this issue, the technician should check the network settings, the router configuration, and the physical connection of the computer. The technician should also try to renew the IP address by using the command `ipconfig /renew` in Windows or `dhclient` in Linux. If the problem persists, the technician may need to contact the network administrator or the ISP for further assistance.

NEW QUESTION 231

- (Topic 3)

A network administrator is testing performance improvements by configuring channel bonding on an 802.Hac AP. Although a site survey detected the majority of the 5GHz frequency spectrum was idle, being used only by the company's WLAN and a nearby government radio system, the AP is not allowing the administrator to manually configure a large portion of the 5GHz frequency range. Which of the following would be BEST to configure for the WLAN being tested?

- A. Upgrade the equipment to an AP that supports manual configuration of the EIRP power settings.
- B. Switch to 802.11
- C. disable channel auto-selection, and enforce channel bonding on the configuration.
- D. Set up the AP to perform a dynamic selection of the frequency according to regulatory requirements.
- E. Deactivate the band 5GHz to avoid Interference with the government radio

Answer: C

NEW QUESTION 233

- (Topic 3)

Which of the following devices and encapsulations are found at the data link layer? (Select two).

- A. Session
- B. Frame
- C. Firewall
- D. Switch
- E. Packet
- F. Router

Answer: BD

Explanation:

A frame is a unit of data that is transmitted at the data link layer of the OSI model. A frame consists of a header, a payload, and a trailer. The header contains information such as the source and destination MAC addresses, the frame type, and the error detection code. The payload contains the data from the upper layer

protocols, such as IP packets. The trailer contains the frame check sequence, which is used to verify the integrity of the frame. A switch is a device that operates at the data link layer of the OSI model. A switch forwards frames based on the MAC addresses of the devices connected to its ports. A switch can create separate collision domains and reduce network congestion. A switch can also implement VLANs, which are logical groups of devices that share the same broadcast domain, regardless of their physical location. A session is a logical connection between two or more devices that allows the exchange of data at the transport layer of the OSI model. A session is not a device or an encapsulation at the data link layer. A firewall is a device that operates at the network layer or the application layer of the OSI model. A firewall filters packets based on the IP addresses, ports, protocols, or application rules. A firewall is not a device or an encapsulation at the data link layer. A packet is a unit of data that is transmitted at the network layer of the OSI model. A packet consists of a header and a payload. The header contains information such as the source and destination IP addresses, the protocol type, and the hop count. The payload contains the data from the upper layer protocols, such as TCP segments. A packet is not an encapsulation at the data link layer. A router is a device that operates at the network layer of the OSI model. A router forwards packets based on the IP addresses and the routing table. A router can create separate broadcast domains and connect different networks. A router is not a device or an encapsulation at the data link layer. References: CompTIA Network+ N10-008 Cert Guide, Chapter 2, Section 2.2 and CompTIA Network+ N10-008 Cert Guide, Chapter 3, Section 3.1

NEW QUESTION 234

- (Topic 3)

Which of the following describes the BEST device to configure as a DHCP relay?

- A. Bridge
- B. Router
- C. Layer 2 switch
- D. Hub

Answer: B

Explanation:

Normally, routers do not forward broadcast traffic. This means that each broadcast domain must be served by its own DHCP server. On a large network with multiple subnets, this would mean provisioning and configuring many DHCP servers. To avoid this scenario, a DHCP relay agent can be configured to provide forwarding of DHCP traffic between subnets. Routers that can provide this type of forwarding are described as RFC 1542 compliant. The DHCP relay intercepts broadcast DHCP frames, applies a unicast address for the appropriate DHCP server, and forwards them over the interface for the subnet containing the server. The DHCP server can identify the original IP subnet from the packet and offer a lease from the appropriate scope. The DHCP relay also performs the reverse process of directing responses from the server to the appropriate client subnet.

NEW QUESTION 236

- (Topic 3)

A network administrator is creating a subnet for a remote office that has 53 network devices. An additional requirement is to use the most efficient subnet. Which of the following CIDR notations indicates the appropriate number of IP addresses with the LEAST amount of unused addresses? (Choose Correct option and give explanation directly from CompTIA Network+ Study guide or documents)

- A. /24
- B. /26
- C. /28
- D. /32

Answer: B

Explanation:

This CIDR notation indicates that there are 64 IP addresses, of which 62 are usable for network devices. This provides the LEAST amount of unused addresses, making it the most efficient subnet for a remote office with 53 network devices. According to the CompTIA Network+ Study Guide, "Subnetting allows you to divide one large network into smaller, more manageable networks or subnets."

NEW QUESTION 241

- (Topic 3)

Which of the following connector types would be used to connect to the demarcation point and provide network access to a cable modem?

- A. F-type
- B. RJ45
- C. LC
- D. RJ11

Answer: A

Explanation:

An F-type connector is a type of coaxial connector that is commonly used to connect a cable modem to the demarcation point, which is the point at which the cable provider's network ends and the customer's network begins. The F-type connector is a threaded connector that is typically used for television, cable modem, and satellite antenna connections.

NEW QUESTION 243

- (Topic 3)

A SQL server connects over port:

- A. 445.
- B. 995
- C. 1433.
- D. 1521.

Answer: C

Explanation:

A SQL server connects over port 1433. Port numbers are used to identify specific applications or services on a network device. Port 1433 is the default port for Microsoft SQL Server, which is a relational database management system that uses SQL (Structured Query Language) to store and manipulate data. References: CompTIA Network+ N10-008 Certification Study Guide, page 147; The Official CompTIA Network+ Student Guide (Exam N10-008), page 6-4.

NEW QUESTION 247

- (Topic 3)

Which of the following can be used to decrease latency during periods of high utilization of a firewall?

- A. Hot site
- B. NIC teaming
- C. HA pair
- D. VRRP

Answer: B

Explanation:

NIC Teaming, also known as load balancing and failover (LBFO), allows multiple network adapters on a computer to be placed into a team for the following purposes:

(<https://www.bing.com/search?q=what+is+nic+teaming+used+for%3F&form=QBLH&sp=-1&pq=what+is+nic+teaming+used+for&sc=10-28&q&sk=&cvid=13882A9A9B584D8099F4ABCAD034E821&ghsh=0&ghacc=0&ghpl=>)

NEW QUESTION 251

- (Topic 3)

A new office space is being designed. The network switches are up, but no services are running yet. A network engineer plugs in a laptop configured as a DHCP client to a switch. Which of the following IP addresses should be assigned to the laptop?

- A. 10.1.1.1
- B. 169.254.1.128
- C. 172.16.128.128
- D. 192.168.0.1

Answer: B

Explanation:

When a DHCP client is connected to a network and no DHCP server is available, the client can automatically configure a link-local address in the 169.254.0.0/16 range using the Automatic Private IP Addressing (APIPA) feature. So, the correct answer is option B, 169.254.1.128. This is also known as an APIPA address.

Reference: CompTIA Network+ Study Guide, Exam N10-007, Fourth Edition, by Todd Lammle (Chapter 4: IP Addressing)

NEW QUESTION 252

- (Topic 3)

Which of the following is a major difference between a router and a Layer 3 switch?

- A. A router can perform PAT, but a Layer 3 switch cannot.
- B. A Layer 3 switch is more efficient than a router.
- C. A router uses higher speed interfaces than a Layer 3 switch.
- D. A Layer 3 switch can run more routing protocols than a router.

Answer: A

Explanation:

PAT (Port Address Translation) is a type of Network Address Translation (NAT) that allows multiple devices to share a single public IP address by using different port numbers. PAT enables devices to access the internet without exposing their private IP addresses. A router is a device that can perform PAT by translating the source IP address and port number of outgoing packets and the destination IP address and port number of incoming packets. A Layer 3 switch is a device that can perform basic routing functions by using IP addresses, but it cannot perform PAT or other advanced routing features that a router can.

NEW QUESTION 256

- (Topic 3)

A customer wants to log in to a vendor's server using a web browser on a laptop. Which of the following would require the LEAST configuration to allow encrypted access to the server?

- A. Secure Sockets Layer
- B. Site-to-site VPN
- C. Remote desktop gateway
- D. Client-to-site VPN

Answer: A

Explanation:

SSL is a widely used protocol for establishing secure, encrypted connections between devices over the Internet. It is typically used to secure communication between web browsers and servers, and can be easily enabled on a server by installing an SSL certificate.

NEW QUESTION 260

- (Topic 3)

A network administrator is getting reports of some internal users who cannot connect to network resources. The users state they were able to connect last week, but not today. No changes have been configured on the network devices or server during the last few weeks. Which of the following is the MOST likely cause of the issue?

- A. The client DHCP scope is fully utilized
- B. The wired network is experiencing electrical interference
- C. The captive portal is down and needs to be restarted
- D. SNMP traps are being received
- E. The packet counter on the router interface is high.

Answer: A

NEW QUESTION 261

- (Topic 3)

An engineer needs to restrict the database servers that are in the same subnet from communicating with each other. The database servers will still need to communicate with the application servers in a different subnet. In some cases, the database servers will be clustered, and the servers will need to communicate with other cluster members. Which of the following technologies will be BEST to use to implement this filtering without creating rules?

- A. Private VLANs
- B. Access control lists
- C. Firewalls
- D. Control plane policing

Answer: A

Explanation:

"Use private VLANs: Also known as port isolation, creating a private VLAN is a method of restricting switch ports (now called private ports) so that they can communicate only with a particular uplink. The private VLAN usually has numerous private ports and only one uplink, which is usually connected to a router, or firewall."

NEW QUESTION 266

- (Topic 3)

Classification using labels according to information sensitivity and impact in case of unauthorized access or leakage is a mandatory component of:

- A. an acceptable use policy.
- B. a memorandum of understanding.
- C. data loss prevention,
- D. a non-disclosure agreement.

Answer: C

Explanation:

Data loss prevention (DLP) is a set of tools and processes that aim to prevent unauthorized access or leakage of sensitive information. One of the components of DLP is data classification, which involves labeling data according to its information sensitivity and impact in case of unauthorized disclosure. Data classification helps to identify and protect the most critical and confidential data and apply appropriate security controls and policies. References: Network+ Study Guide Objective 5.1: Explain the importance of policies, processes and procedures for IT governance. Subobjective: Data loss prevention.

NEW QUESTION 267

- (Topic 3)

A company wants to mitigate unauthorized physical connectivity after implementing a hybrid work schedule. Which of the following will the company most likely configure?

- A. Intrusion prevention system
- B. DHCP snooping
- C. ARP inspection
- D. Port security

Answer: D

Explanation:

Port security is a feature that allows network administrators to limit the number of devices that can connect to a switch port, based on the MAC address of the device. This can prevent unauthorized physical connectivity by blocking any device that is not on the allowed list or exceeding the maximum number of devices per port. Port security can also trigger an action, such as shutting down the port or sending an alert, when a violation occurs. References: CompTIA Network+ N10-008 Cert Guide - O'Reilly Media, Chapter 14: Securing a Basic Network, page 512

NEW QUESTION 269

- (Topic 3)

A user reports that a new VoIP phone works properly but the computer that is connected to the phone cannot access any network resources. Which of the following MOST Likely needs to be configured correctly to provide network connectivity to the computer?

- A. Port duplex settings
- B. Port aggregation
- C. ARP settings
- D. VLAN tags
- E. MDIX settings

Answer: D

Explanation:

VLAN (virtual LAN) tags are used to identify packets as belonging to a particular VLAN. VLANs are used to segment a network into logical sub-networks, and each VLAN is assigned a unique VLAN tag. If the VLAN tag is not configured correctly, the computer may not be able to access network resources.

NEW QUESTION 274

- (Topic 3)

Which of the following common agreements would a company most likely have an employee sign as a condition of employment?

- A. NDA
- B. ISP
- C. SLA
- D. MOU

Answer: A**Explanation:**

An NDA, or non-disclosure agreement, is a legal contract that binds an employee to keep certain information confidential and not share it with unauthorized parties. This information may include trade secrets, intellectual property, business strategies, customer data, or other sensitive or proprietary information that gives the company a competitive advantage. An NDA protects the company's interests and prevents the employee from disclosing or using the information for personal gain or malicious purposes¹.

References¹ - 10 Types of Employment Contracts | Indeed.com

NEW QUESTION 276

- (Topic 3)

Which of the following layers is where TCP/IP port numbers identify which network application is receiving the packet and where it is applied?

- A. 3
- B. 4
- C. 5
- D. 6
- E. 7

Answer: B**Explanation:**

Layer 4 is where TCP/IP port numbers identify which network application is receiving the packet and where it is applied. Layer 4 is also known as the transport layer in the TCP/IP model or the OSI model. The transport layer is responsible for providing reliable or unreliable end-to-end data transmission between hosts on a network. The transport layer uses port numbers to identify and multiplex different applications or processes that communicate over the network. Port numbers are 16-bit numbers that range from 0 to 65535 and are divided into three categories: well-known ports (0-1023), registered ports (1024-49151), and dynamic ports (49152-65535). Some examples of well-known port numbers are 80 for HTTP, 443 for HTTPS, and 25 for SMTP. References: [CompTIA Network+ Certification Exam Objectives], Transport Layer - an overview | ScienceDirect Topics

NEW QUESTION 280

- (Topic 3)

A technician is configuring a bandwidth-monitoring tool that supports payloads of 1,600 bytes. Which of the following should the technician configure for this tool?

- A. LACP
- B. Flow control
- C. Port mirroring
- D. Jumbo frames

Answer: D**Explanation:**

Jumbo frames are Ethernet frames that can carry more than the standard 1,500 bytes of payload data. Jumbo frames can support payloads of up to 9,000 bytes, depending on the network device and configuration. Jumbo frames can improve network performance by reducing the overhead of packet headers and increasing the efficiency of data transmission. Jumbo frames can also reduce the CPU utilization of the sender and receiver devices, as they require fewer interrupts and processing cycles. However, jumbo frames also have some drawbacks, such as increased latency, fragmentation, and compatibility issues. Therefore, jumbo frames should be used with caution and only in networks that support them end-to-end.

A technician who is configuring a bandwidth-monitoring tool that supports payloads of 1,600 bytes should enable jumbo frames for this tool, as this would allow the tool to capture and analyze more data per frame and provide more accurate and detailed results. However, the technician should also ensure that the network devices and interfaces that the tool is connected to also support jumbo frames, and that the MTU (maximum transmission unit) is set to the same value across the network path.

ReferencesWhat are Jumbo Frames?How to Enable Jumbo FramesCompTIA Network+ Certification All-in-One Exam Guide, Eighth Edition (Exam N10-008)

NEW QUESTION 284

- (Topic 3)

Due to concerns around single points of failure, a company decided to add an additional WAN to the network. The company added a second MPLS vendor to the current MPLS WAN and deployed an additional WAN router at each site. Both MPLS providers use OSPF on the WAN network, and EIGRP is run internally. The first site to go live with the new WAN is successful, but when the second site is activated significant network issues occur. Which of the following is the MOST likely cause for the WAN instability?

- A. A routing loop
- B. Asymmetrical routing
- C. A switching loop
- D. An incorrect IP address

Answer: B**Explanation:**

Asymmetrical routing is the most likely cause for the WAN instability. When two different routing protocols are used, like OSPF and EIGRP, it can cause asymmetrical routing, which results in traffic being routed differently in each direction. This can lead to instability in the WAN. A CDP neighbor change, a switching loop, or an incorrect IP address are not likely causes for WAN instability.

NEW QUESTION 289

- (Topic 3)

Which of the following refers to a weakness in a mechanism or technical process?

- A. Vulnerability
- B. Risk
- C. Exploit
- D. Threat

Answer: A

Explanation:

The term that refers to a weakness in a mechanism or technical process is vulnerability. A vulnerability is a flaw or gap in a system's security that can be exploited by an attacker to gain unauthorized access, compromise data, or cause damage. A vulnerability can be caused by design errors, configuration errors, software bugs, human errors, or environmental factors. For example, an outdated software version that has known security holes is a vulnerability that can be exploited by malware or hackers. References: CompTIA Network+ N10-008 Certification Study Guide, page 342; The Official CompTIA Network+ Student Guide (Exam N10-008), page 13-7.

NEW QUESTION 290

- (Topic 3)

Which of the following security concepts is related to ensuring that encrypted data is not edited while in transit?

- A. Zero trust
- B. Integrity
- C. Availability
- D. Confidentiality

Answer: B

Explanation:

Integrity is the security concept that is related to ensuring that encrypted data is not edited while in transit. Integrity is one of the three main goals of information security, along with confidentiality and availability. Integrity means that data is protected from unauthorized modification or corruption during storage, processing, or transmission. Integrity can be achieved by using various techniques, such as hashing, digital signatures, checksums, or message authentication codes (MACs). These techniques can verify the authenticity and validity of the data by detecting any changes or tampering that may have occurred. References: [CompTIA Network+ Certification Exam Objectives], What Is Data Integrity? | Definition & Examples | Forcepoint

NEW QUESTION 292

- (Topic 3)

A network administrator is preparing answers for an annual risk assessment that is required for compliance purposes. Which of the following would be an example of an internal threat?

- A. An approved vendor with on-site offices
- B. An infected client that pulls reports from the firm
- C. A malicious attacker from within the same country
- D. A malicious attacker attempting to socially engineer access into corporate offices

Answer: A

Explanation:

Insider threat= insider threat is defined as the threat that an employee or a contractor will use his or her authorized access, wittingly or unwittingly, to do harm

NEW QUESTION 294

- (Topic 3)

A systems operator is granted access to a monitoring application, configuration application, and timekeeping application. The operator is denied access to the financial and project management applications by the system's security configuration. Which of the following BEST describes the security principle in use?

- A. Network access control
- B. Least privilege
- C. Multifactor authentication
- D. Separation of duties

Answer: D

NEW QUESTION 297

- (Topic 3)

A network technician is hired to review all the devices within a network and make recommendations to improve network efficiency. Which of the following should the technician do FIRST before reviewing and making any recommendations?

- A. Capture a network baseline
- B. Perform an environmental review.
- C. Read the network logs
- D. Run a bandwidth test

Answer: A

Explanation:

Before making any recommendations, a network technician should first capture a network baseline, which is a snapshot of the current performance of the network.

This will give the technician a baseline to compare against after any changes are made. According to the CompTIA Network+ Study Manual, the technician should "capture the state of the network before making any changes and then compare the performance after the changes have been made. This will provide an accurate baseline to compare the performance of the network before and after the changes have been made."

NEW QUESTION 298

- (Topic 3)

An office area contains two PoE-enabled WAPs. After the area was remodeled, new cable uplinks were installed in the ceiling above the fluorescent lights. However, after the WAPs were reconnected, users reported slowness and application errors. An intern reviewed the network and discovered a lot of CRC errors. A network engineer reviewed the intern's work and realized UTP cabling was used. Which of the following is the MOST likely cause of the CRC errors?

- A. Insufficient power at the antennas
- B. PoE and UTP incompatibility
- C. Electromagnetic interference
- D. Wrong cable pinout

Answer: C

Explanation:

"EMI is a problem when cables are installed near electrical devices, such as air conditioners or fluorescent light fixtures. If a network medium is placed close enough to such a device, the signal within the cable might become corrupt. Network media vary in their resistance to the effects of EMI. Standard unshielded twisted-pair (UTP) cable is susceptible to EMI, whereas fiber cable, with its light transmissions, is resistant to EMI. When deciding on a particular medium, consider where it will run and the impact EMI can have on the installation."

NEW QUESTION 300

- (Topic 3)

A building was recently remodeled in order to expand the front lobby. Some mobile users have been unable to connect to the available network jacks within the new lobby, while others have had no issues. Which of the following is the MOST likely cause of the connectivity issues?

- A. LACP
- B. Port security
- C. 802.11ax
- D. Duplex settings

Answer: B

Explanation:

Port security is a feature that allows a network device to limit the number and type of MAC addresses that can access a port. Port security can prevent unauthorized devices from connecting to the network through an available network jack. Therefore, port security is the most likely cause of the connectivity issues for some mobile users in the new lobby.

NEW QUESTION 301

- (Topic 3)

Which of the following routing protocols should be implemented to create a route between a local area network and an ISP?

- A. BGP
- B. EIGRP
- C. RIP
- D. OSPF

Answer: A

Explanation:

BGP stands for Border Gateway Protocol, and it is a routing protocol that is used to exchange routing information between different autonomous systems (AS) on the Internet. An AS is a network or a group of networks that are under the same administrative control and share a common routing policy. BGP is used to create routes between local area networks and Internet service providers (ISPs), as well as between different ISPs. BGP is considered an exterior gateway protocol (EGP), as opposed to an interior gateway protocol (IGP) such as EIGRP, RIP, or OSPF, which are used to create routes within an AS. References: CompTIA Network+ N10-008 Cert Guide, Chapter 3, Section 3.4

NEW QUESTION 302

- (Topic 3)

Which of the following OSI model layers are responsible for handling packets from the sources to the destination and checking for errors? (Select two).

- A. Physical
- B. Session
- C. Data link
- D. Network
- E. Presentation
- F. Application

Answer: CD

Explanation:

The data link and network layers are responsible for handling packets from the source to the destination and checking for errors. The data link layer is the second layer of the OSI model, which is a conceptual framework that describes how different network functions are organized and interact. The data link layer is responsible for providing reliable and efficient data transmission between two adjacent nodes on a network. The data link layer uses frames as its unit of data, and adds a header and a trailer to each frame that contain information such as source and destination MAC addresses, frame type, and error detection code. The data link layer can check for errors by using techniques such as parity check, checksum, or cyclic redundancy check (CRC). The network layer is the third layer of the OSI model, which is responsible for providing logical addressing and routing of packets across different networks. The network layer uses packets as its unit of

data, and adds a header to each packet that contains information such as source and destination IP addresses, protocol type, and hop count. The network layer can check for errors by using techniques such as Internet Control Message Protocol (ICMP), which can send and receive error messages or diagnostic information. References: [CompTIA Network+ Certification Exam Objectives], Data Link Layer - an overview | ScienceDirect Topics, Network Layer - an overview | ScienceDirect Topics

NEW QUESTION 307

- (Topic 3)

Which of the following routing protocols is BEST suited for use on a perimeter router?

- A. OSPF
- B. RIPv2
- C. EIGRP
- D. BGP

Answer: D

Explanation:

BGP stands for Border Gateway Protocol and it is used to exchange routing information between autonomous systems (AS) on the Internet. A perimeter router is a router that connects an AS to another AS or to the Internet. Therefore, BGP is the best suited routing protocol for a perimeter router.

References: Network+ Study Guide Objective 2.4: Compare and contrast the characteristics of network topologies, types and technologies.

NEW QUESTION 312

- (Topic 3)

A consultant is working with two international companies. The companies will be sharing cloud resources for a project. Which of the following documents would provide an agreement on how to utilize the resources?

- A. MOU
- B. NDA
- C. AUP
- D. SLA

Answer: A

Explanation:

A memorandum of understanding (MOU) is a document that describes an agreement between two or more parties on how to utilize shared resources for a project. An MOU is not legally binding, but it outlines the expectations and responsibilities of each party involved in the collaboration. An MOU can be used when two international companies want to share cloud resources for a project without creating a formal contract. References: <https://www.comptia.org/training/books/network-n10-008-study-guide> (page 405)

NEW QUESTION 316

- (Topic 3)

Which of the following most likely determines the size of a rack for installation? (Select two).

- A. KVM size
- B. Switch depth
- C. Hard drive size
- D. Cooling fan speed
- E. Outlet amperage
- F. Server height

Answer: BF

Explanation:

The size of a rack for installation depends on several factors, such as the available space, the power and cooling requirements, and the dimensions of the equipment to be installed. Two of the most important dimensions to consider are the switch depth and the server height. Switch depth refers to the length of the switch from front to back, which determines how much space is needed inside the rack. Server height refers to the vertical space occupied by the server, which is measured in rack units (RU) or U. One rack unit is equal to 1.75 inches. The height of the rack should be able to accommodate the total number of rack units needed for the servers and other devices, as well as some extra space for cable management and airflow. References: CompTIA Network+ N10-008 Cert Guide, Chapter 2, Section 2.5

NEW QUESTION 320

- (Topic 3)

A network administrator needs to provide remote clients with access to an internal web application. Which of the following methods provides the highest flexibility and compatibility while encrypting only the connection to the web application?

- A. Clientless VPN
- B. Virtual desktop
- C. Virtual network computing
- D. mGRE tunnel

Answer: A

Explanation:

A clientless VPN is a method of providing remote clients with access to an internal web application without installing any additional software or dedicated VPN client on their devices. Instead, users access the VPN through a web browser, utilizing a web portal or gateway provided by the VPN service. This method provides the highest flexibility and compatibility, as it supports various operating systems and devices, and encrypts only the connection to the web application, not the entire traffic of the device.

NEW QUESTION 321

- (Topic 3)

Which of the following would be BEST to install to find and block any malicious users within a network?

- A. IDS
- B. IPS
- C. SCADA
- D. ICS

Answer: B**Explanation:**

IPS takes action itself to block the attempted intrusion or otherwise remediate the incident. IDS is designed to only provide an alert about a potential incident, which enables a security operations center (SOC) analyst to investigate the event and determine whether it requires further action.

NEW QUESTION 323

- (Topic 3)

The network engineer receives a new router to use for WAN connectivity. Which of the following best describes the layer the network engineer should connect the new router to?

- A. Core
- B. Leaf
- C. Distribution
- D. Access

Answer: C**Explanation:**

The distribution layer is the layer that connects the access layer to the core layer in a hierarchical network design. The distribution layer is responsible for routing, filtering, and policy enforcement between the LAN and the WAN. A router is a layer 3 device that can perform these functions and connect to different WAN technologies.

References:

? CompTIA Network+ N10-008 Certification Study Guide, page 151

? CompTIA Network+ N10-008 Cert Guide, Deluxe Edition, page 322

? CompTIA Network+ N10-008 Exam Cram, page 233

NEW QUESTION 327

- (Topic 3)

Which of the following requires network devices to be managed using a different set of IP addresses?

- A. Console
- B. Split tunnel
- C. Jump box
- D. Out of band

Answer: D**Explanation:**

Out of band management is a process for accessing and managing network devices and infrastructure at remote locations through a separate management plane from the production network. Out of band management requires network devices to be managed using a different set of IP addresses than the ones used for in-band management or data traffic. This provides a secure and dedicated alternate access method to administer connected devices and IT assets without using the corporate LAN.

NEW QUESTION 329

- (Topic 3)

A technician is tasked with setting up a mail server and a DNS server. The mail port should be secured and have the ability to transfer large files. Which of the following ports should be opened? (Select TWO).

- A. 22
- B. 53
- C. 110
- D. 389
- E. 995
- F. 3389

Answer: BE**Explanation:**

Port 53 is used for DNS, which is a service that translates domain names into IP addresses. Port 995 is used for POP3S, which is a protocol for receiving email messages securely. POP3S supports large file transfers and encryption. Therefore, these two ports should be opened for the mail server and the DNS server project.

NEW QUESTION 331

- (Topic 3)

While working in a coffee shop, an attacker watches a user log in to a corporate system and writes down the user's log-in credentials. Which of the following social engineering attacks is this an example of?

- A. Shoulder surfing
- B. Dumpster diving

- C. Phishing
- D. Tailgating

Answer: A

Explanation:

Shoulder surfing is the social engineering attack where an attacker watches a user log in to a corporate system and writes down the user's log-in credentials. Social engineering is a type of attack that exploits human psychology and behavior to manipulate or trick people into revealing sensitive information or performing malicious actions. Shoulder surfing is a form of social engineering that involves observing or eavesdropping on someone's screen, keyboard, or paper documents to obtain confidential information such as passwords, PINs, or credit card numbers. Shoulder surfing can be done in person or remotely using cameras or other devices. Shoulder surfing can be prevented by using privacy filters, locking screens, shielding keyboards, or being aware of one's surroundings. References: [CompTIA Network+ Certification Exam Objectives], What Is Shoulder Surfing? | Definition & Examples | Forcepoint

NEW QUESTION 333

- (Topic 3)

A technician is assisting a user who cannot connect to a website. The technician attempts to ping the default gateway and DNS server of the workstation. According to troubleshooting methodology, this is an example of:

- A. a divide-and-conquer approach.
- B. a bottom-up approach.
- C. a top-to-bottom approach.
- D. implementing a solution.

Answer: A

NEW QUESTION 334

- (Topic 3)

A network manager wants to set up a remote access system for the engineering staff. Access to this system will be over a public IP and secured with an ACL. Which of the following best describes this system?

- A. VPN
- B. Secure Shell
- C. Jump server
- D. API

Answer: C

Explanation:

A jump server is a system that allows remote access to internal devices through a single, secure device on the public network. A jump server can be configured with an access control list (ACL) to limit who can access the system and what devices they can connect to. A jump server can also use secure protocols such as SSH or VPN to encrypt the communication between the remote user and the internal device. A jump server is different from a VPN, which creates a virtual private network between the remote user and the internal network. A jump server is also different from a secure shell, which is a protocol that allows remote command execution and file transfer. An API is an application programming interface that allows software components to interact with each other.

References:

? Other Network Appliances – SY0-601 CompTIA Security+ : 3.31

NEW QUESTION 335

- (Topic 3)

A security engineer wants to provide a secure, dedicated, alternate access method into an IT network infrastructure to administer connected devices and IT assets. Which of the following is the engineer most likely to implement?

- A. Remote desktop gateway
- B. Authentication and authorization controls
- C. Out-of-band management
- D. Secure Shell

Answer: C

Explanation:

Out-of-band management is a method of accessing network devices and IT assets through a dedicated channel that is separate from the normal data traffic. This provides a secure and alternate way to administer the network infrastructure, especially in case of failures or emergencies. Remote desktop gateway is a service that allows remote access to desktops and applications on a network. Authentication and authorization controls are mechanisms that verify the identity and permissions of users and devices on a network. Secure Shell is a protocol that encrypts the communication between a client and a server on a network.

NEW QUESTION 336

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